Occupational HEALTH

SOUTHERN AFRICA

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

In this issue:

Vol 3 No 6 Nov/Dec 1997

Meet the Burns Unit Team

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Occupational HEALTH SOUTHERN AFRICA

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Is it the Law?

Occupational Health is a unique description in which knowledge of various statutes and Acts is imperative for the Occupational Health worker to get to grips with recognition of such requirements, and the ability to comprehend and enact those legalities at all times. The maintenance of professional and ethical standards is essential and, currently, the dilemma of creating a milieu in which interpretation of the law has to some extent been confounded by enormous changes taking place in industry. As much as labour and all the representative unions have steadfastly determined principles protecting their members, so management systems have changed and adapted to the challenges of social integration and the economic realities of the international arena. All of these are taking place in a framework in which the legal requirements need to be identified.

Hayward makes reference to the dilemma attached to HIV screening and the enormous difficulty in handling both principles and regulated or statutory requirements. The debate is by no means over and the intense recognition of how the whole question of HIV is integrally related to the workforce is already in place. The legal standpoint, however, is clouded by many questions and there are few answers, if any.

Taking a significant approach to the hidden epidemic of occupational skin diseases, Stark *et al* are highlighting the serious and increasingly relevant problems that arise out of these skin conditions. The treatment is not necessarily confined to the clinic, and what is specifically relevant is that compensation has only just began. But this is not unexpected, except that it opens new dimensions of administrative difficulties as well. Resins, solvents and (the recent comprehensive coverage of) latex allergies, all identify examples of this.

This question on TB at the workplace continues to be a dominant problem, and to some extent this is quite intolerable. What is of far more serious concern is that comprehensive management of TB (together with the implications that Multi Drug Resistance, associated HIV infection, etc.), provide the workplace with very effective and clearly defined challenges in which these complications can or have to be addressed. The DOTS (Directly Observed Treatment Short-course) system is an initiative which is extremely useful and therefore should be encouraged.

As the end of 1997 begins, many of us who work in industry enjoy various celebrations and end-of-year parties, together with the giving and receiving of gifts and the relaxing time when people take breaks for holidays, etc. This in itself creates a whole new dimension and the initiatives undertaken by the traffic authorities need to be encouraged to protect us against excessive alcohol consumption (and/or drugs), and to alleviate the pain and suffering that ensues as a result of motor vehicle accidents and other tragedies. We hope our readers will heed this and support the efforts of the authorities to control this problem. On behalf of the board, may we wish you all a very happy and festive season, with the serious realisation that the enjoyment of these festivities is endorsed by the health and safety of us all.

Hamba Kahle!

Chris van Selm
Editor

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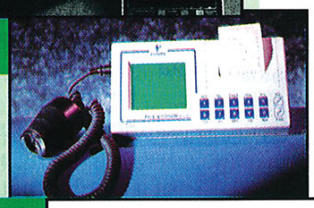

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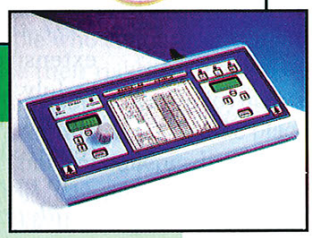

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M A

A testing time for the South African Law Commission

M Heywood

Mark Heywood
Head: AIDS Law Project, Centre for Applied Legal Studies, University of the Witwatersrand

Occupational Health SA 1997; Vol 3, No 6: 4 - 8

Introduction

For most of 1997, a Project Committee of the South African Law Commission has been debating and researching the merits of a statute that proposes to prohibit the practice of pre-employment HIV screening. After receiving written submissions from Business South Africa (BSA) and the Congress of South African Trade Unions (COSATU) on a bill drafted by Justice Edwin Cameron in February 1997, the Commission produced an extensive Discussion Paper on the subject in July 1997.

In this paper the Project Committee reported that it had decided

> *to provisionally recommend the adoption of a specific statute in order to regulate those instances where an employer may ask an applicant for employment to take an HIV test, and to prevent an employer from refusing an individual employment on the grounds of that person's HIV status or perceived HIV status, unless such refusal is deemed fair and justifiable.*

The draft of the Bill was distributed to many organisations for comment. At the time of writing, the SA Law Commission had not produced a further report dealing with the nature of responses to its proposal, or its own further recommendations.

The need for protection

Unlike any other life-threatening condition, such as cancer, the Human Immunodeficiency Virus (HIV) affects millions of South Africans. The 1996 Department of Health antenatal survey established that 14,07 % of women attending antenatal clinics had HIV. From this it was estimated that up to 14% of people aged between 20 and 34 have HIV, and that 2,4 million people of all ages are infected.[1]

Because the highest rates of infection are amongst the economically active, the epidemic is bound to have serious implications for the economy and for labour market policy.[2] BSA, which is "totally opposed" to the Bill, estimates that by the year 2005 South Africa will have 15000 AIDS cases per million inhabitants, in comparison with countries in northern Europe "where the epidemic appears to be stabilising with the incidence of AIDS cases between 8 and 45 per million per annum." Pointing to high staff turnover, diminishing productivity and morale, the negative effect on employee benefits and "wasted" investments in human resources, it concludes that "the very severity of the problem could threaten economic viability of organisations at a time when the productive and competitive capacity of the economy is of vital importance."[3]

Consequently there is a groundswell of opinion that the increasing severity of the AIDS epidemic, measured against the needs of a developing world economy, makes some discrimination against people with HIV and AIDS "fair". Increasingly BSA is asserting that it is fair that applicants for certain jobs be required to have an HIV test.

In March 1995 a survey of a range of employers, covering 370000 employees, was carried out at seminars organised by Andrew Levy and Associates in Johannesburg, Durban and Cape Town. 18,1% admitted testing prospective employees for HIV. Seventy percent said that knowledge of a person's HIV infection would influence a decision to hire them, and 28% said it would influence decisions about promotion. Six months later, in October, a similar survey was carried out. This survey had a smaller number of respondents (96), yet the increase in reported pre-employment HIV testing was substantial - 37% reported testing their employees.[4]

These surveys give some inkling of the drift of big business. But pre-employment HIV testing is also common in less formal areas of employment, such as domestic work. In the public sector the South African Police Services (SAPS), the South African National Defence Force (SANDF) and the Department of Correctional Services (DCS) routinely tested job applicants for HIV. However, this practice was ended by a Cabinet resolution in May 1997.

Voluntariness and public health?

Personal knowledge of whether you have been infected with HIV or not is obviously a benefit. But the decision to have an HIV test is voluntary, and is one aspect of a procedure that must include pre- and post-test counselling. It is important to distinguish between HIV testing for health reasons and HIV testing for employment or insurance. In the context of high unemployment, the applicant who refuses an HIV test is unlikely to be employed, so many would-be employees submit to an HIV test, with no understanding of its implications. The majority are tested for HIV without proper pre- and post-test counselling or giving informed consent.

This is unlawful and in contravention of the National AIDS Plan (p. 23). But it also has implications for health care. Such HIV testing has no diagnostic or healthcare rationale. It usually leads to people discovering their HIV status in a public health service that is unable to provide them with medical or emotional support. This sometimes deters people from further contact with the health service, and especially with HIV/AIDS counsellors. Anger and denial contribute to further transmission of HIV.

Finally this kind of HIV test reinforces the unjustifiable perception that persons with HIV are unhealthy, incapacitated and pose a risk to the safety of others.

Rights and wrongs

Job applicants who 'agree' to an HIV test surrender their rights to autonomy, dignity, privacy and confidentiality and, if they prove to be HIV positive, to gainful employment. Pre-employment testing becomes a form of mandatory HIV testing and amounts to unfair discrimination.

BSA argues that the Constitution (Act 200 of 1996) and the Labour Relations Act (Act 66 of 1995) provide sufficient protection against "unfair" HIV testing and consequent discrimination. The LRA, for example, protects applicants for employment from unfair discrimination that includes, but is not limited to, "race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language and birth".

If discrimination based solely upon HIV status is unconstitutional and an unfair labour practice, BSA argues, then why is there a need for the specific legislation that is proposed?

COSATU and the AIDS lobby respond by pointing out how people with HIV face prejudice and stigma. They confront fears about their health and the hostility of a large part of society. The desire to hide information about one's HIV infection means that most people who suffer discrimination do not exercise their rights by making a complaint. This allows pre-employment HIV testing - however unlawful - to take place on a broad scale, but unchallenged.

Added to this, job applicants are not members of trade unions, are often semi-literate and rarely have the knowledge of law to challenge unfair labour practices. Complaints are therefore few and far between. Further, it is difficult for a job applicant to prove that the result of an HIV test was the reason why he or she was not employed.

Making the practice unlawful, in the manner proposed by the SALC, would allow employees and employee organisations to oppose requests for an HIV test *before* they take place, rather than after the result. It would also be consistent with the Constitution, which places the "guarantee of equality" at the fore of all rights and requires that "National legislation must be enacted to prevent or prohibit unfair discrimination." (S9(5))

Government policy and international law

Pre-employment HIV testing is in breach of the Department of Health's National AIDS Plan. The Minister of Health has condemned it as "costly and wasteful" and complained that it was diverting

"scarce resources from education and care". *(Statement to Parliament, 30 August 1994)*. The Minister of Labour told the National Assembly that

> "HIV infection in itself, does not constitute a lack of fitness to work and in view thereof the Department of Labour does not consider that HIV screening for employment should be required." *(Statement to Parliament, 16 October 1996)*

According to the SALC Discussion Paper (p. 58):

> "Internationally a substantial body of statutes and case law protects individuals from discrimination, and prevents employers from requiring applicants for employment to undergo HIV-testing."

The belief that pre-employment testing for HIV is unacceptable is also advanced by the World Health Organisation (WHO), the United Nations,[5] the International Labour Organisation (ILO)[6] and the Southern African Development Community.[7] In 1996, the Canadian Human Rights Commission released a policy statement opposing any form of pre- or post- employment testing and stating:

> "The Commission will not accept being free from HIV/AIDS as a *bona fide occupational requirement* or a *bona fide justification* unless it can be proven that such a requirement is essential to the safe, efficient and reliable performance of the essential functions of a job or is a justified requirement for receiving programs or services... Any decision by an organisation relying on health and safety considerations to exclude a person must be based on an individual assessment supported by authoritative and up-to-date medical and scientific information."[8]

Possible justifications for HIV testing

The SALC draft bill appears to have been influenced by the Canadian approach. Section 3 deals with 'Authorisation for pre-employment testing for HIV'. It proposes that "An employer may apply to the Labour Court for authorisation..." which the Labour Court may grant if

> "it is satisfied that the consideration of the HIV status of an applicant for employment is, in the light of medical facts, employment conditions, and social policy, fair and justifiable."[9]

Many organisations concerned with AIDS and human rights have welcomed this section. It is not known how BSA has responded. This 'escape clause' leaves open the possibility that there may be "reasonable grounds" for HIV testing. However, if an Act were to be passed in this form it is difficult to envisage situations where the Labour Court would grant authorisation, precisely because "medical facts" and "social policy" eliminate justifiable grounds.

The following arguments, although not exhaustive, should illustrate some of the reasons why.

- A right to freedom of contract accepts that an employer may legitimately request a medical examination to assess *present* fitness. But it would be an invasion of privacy to try to determine how long an employee with HIV - or any other progressively debilitating condition - will be well for. It is unlawful to refuse to employ someone because they will become ill sometime in *future*. The length of time an employee with HIV will be well for will depend on working conditions, income, etc. But it should be borne in mind (in the manner of the Canadian HRC) that medicine is rapidly extending the lives of people with HIV, and even for people who cannot afford expensive treatment, basic steps can prolong health and life. When an employee can no longer perform a job for health reasons, clear procedures for dismissal as a result of incapacity are set out in the Labour Relations Act.[10]

The only occupations where a slight risk of work-related HIV infection exists are jobs that involve contact with blood and bodily fluids, mainly health and emergency services. Even here, however, the Centre for Disease Control (CDC) in the USA has established that "the chances of a health care worker infected with AIDS passing the virus on to a patient are so slight they can't be put into numbers",[11] and vice versa. Compliance with infection control procedures ("universal precautions") "which are not time consuming nor significantly expensive, by all members of the health care team, should reduce the risk of infection of healthcare workers by patients, and of patients by healthcare workers, to very nearly zero."[12]

A proposal to amend General Safety Regulation 3 of the Occupational Health and Safety Act to make these precautions, and the availability of personal protective

equipment, compulsory has been accepted by the Law Commission (*First Interim Report*, February 1997). Therefore, at this point, there are no legitimate reasons for mandatory HIV testing even in the health professions.

• An argument is often made that jobs which require a high degree of alertness in the interests of public safety make knowledge of an employee's HIV status relevant. A sudden intellectual deterioration due to neurological impairments may be dangerous to others. The airline pilot or mine lift operator are examples. Clinical research into the effect of asymptomatic HIV on neurological functioning seems to give contradictory answers on this issue. However, in relation to employment capacity the WHO suggests that:

> "there exist practical rather than biological tests for spatial and neurological functioning which are non-discriminatory because they do not identify the cause of the impairment (which could be due to a number of conditions such as stress, fatigue, ageing, substance abuse, brain tumours and psychiatric disorders), but concentrate on its effect in relation to job performance."[13]

• Working conditions in certain industries may make HIV testing advisable in the worker's own interest, for example, the association of HIV with TB in the mining industry. But where it is obviously in an individual's own interest to know her/his HIV status, a decision on HIV testing should still only be taken on the basis of informed consent. It could be recommended as part of an employment programme that educates employees about their health and encourages health-seeking behaviour. The results of any such testing should not be used to exclude employees from employment.

• HIV/AIDS has the potential to adversely affect employee benefits, pension and provident funds, and group life assurance schemes.[14] But denying persons with HIV employment to "protect" these schemes will not decrease the costs. It is irrational because large numbers of people with HIV are already in employment, or will become infected during their employment. As we learnt with apartheid, discrimination carries its own costs. Countenancing the eventual exclusion of up to 20% of employees from benefits will place the cost of their social security on the state, taxpayers, and the individuals themselves. Once again a less restrictive and more rational approach is to try to find ways to ensure that non-discriminatory and viable employee benefits are renegotiated by employers, the government and the labour movement at bodies such as the National Economic, Development and Labour Council (Nedlac).

Summary

Business, the trade unions and the 'AIDS lobby' are still at loggerheads on the proposed legislation, and the SALC will soon have to determine a point at which consensus-seeking falls away to comply with the dictates of the constitution on unfair discrimination. The scale of the AIDS epidemic means that, if permitted, pre-employment HIV testing could eventually deny 10-25% of job-seekers access to employment. This is obviously discriminatory. It will place an enormous burden on the welfare services in the country. But above all it is contrary to public health, and the best practices for HIV prevention that are promoted worldwide.

The reasons for this are best summed up by a former director of the Global Programme on AIDS.

"A decade of practice shows that compulsory testing can't achieve AIDS prevention in the workplace any more than it can outside it. It sends your workers the wrong message too - that HIV can be stopped at the door of the factory or office. That is simply untrue, and it will undermine the real prevention messages of your education programme.

"Testing merely distracts attention from the real issue, which is how to help your existing employees avoid exposure to HIV. After all, no matter how big your annual turn over is, it is small in comparison to your overall workforce. A simple calculation will show that most new infections in the firm are bound to turn up among existing employees. So that is where you need to put your energy and resources..."[15]

And so say all of us! A nondiscriminatory environment, if necessary protected by the kind of law being proposed by the SALC, will assist to reduce risk behaviours and allow persons with HIV to support themselves and their families.

References

1. *Summary of the Results of the Seventh National HIV Survey of Women Attending Antenatal Clinics of the Public Health Services in South Africa, October/November 1996, Department of Health. Doyle, P, Muhr. T. Commentary on the Seventh National Survey, May 1996.*
2. *Between 8 and 9 million people are in some form of formal employment, each with around 3-4 dependants. If one assumes only 3 dependants per employed person, a total of 34 million people are affected by what happens in the workplace.*
3. *Response to the South African Law Commission Project Committee Investigating Aspect of the Law Relating to HIV/AIDS, Feb 1997 (unpublished).*
4. *Silver, B. Preliminary Results of a Pilot Survey Among Managers, Personnel, and Human Resource Officers, 1995.*
5. *UNAIDS. Guidelines on HIV and Human Right, adopted by the United Nations Human Rights Commission in 1997.*
6. *ILO. AIDS and the Workplace, 1988.*
7. *SADC Ministers of Labour endorsed the SADC Code on HIV/AIDS and Employment in May 1997. It states: "Employees should be given the normal medical tests of current fitness for work and these tests should not include testing for HIV."*
8. *Canadian HIV/AIDS Policy and Law Newsletter, 3:1, October 1996.*
9. *An alternative adds "and the inherent requirements of the particular job". The two options represent one area of the Bill on which the Project Committee was not unanimous.*
10. *Labour Relations Act (66 of 1995), Schedule 8, Code of Good Practice: Dismissal, S10 Incapacity: Ill Health or Injury.*
11. *22171 patients, treated by 64 health care workers infected with HIV were monitored. GP Bulletin, June 1995.*
12. *SAMDC guidelines on The Management of Patients with HIV infection or AIDS , 1992.*
13. *Australian HIV/AIDS Legal Guide. The Federation Press, 1993, p. 480. Report of the Consultation on the Neuropsychiatric Aspects of HIV Infection. WHO/Global Programme on AIDS.*
14. *Various attempts have been made to calculate the impact HIV will have on employee benefits. See: Old Mutual, The AIDS Epidemic, Impact on Employee Benefits, a case study of Eskom, 1996; Heywood, M. 'Issues in Social Security, Employee Benefits and HIV/AIDS' conference paper, January 1996.*
15. *Merson, M. AIDS: Epidemic Update and Corporate Response, The Economic and Social Impact of AIDS in Europe, Cassel. 1995.*

PACOH '97
PAN AFRICAN CONFERENCE
ON OCCUPATIONAL HEALTH

From my pen! (uh.. PC actually)

The feedback from delegates and exhibitors at the PACOH Conference has been very positive.

285 full delegates/speakers attended the conference and a further 10 attended for one or two days only.

There were 30 delegates from international countries - the following being represented: Seychelles, Kenya, Namibia, Ivory Coast, Uganda, Australia, Denmark, Ghana, Zimbabwe, UK, Belgium, Egypt, USA, France, Botswana and Switzerland.

21 exhibitors hired 24 stands to display their products and services.

The opportunity to present posters was not well supported but the 8 posters that were displayed were of a very high standard.

Mr Tito Mboweni, Minister of Labour, gave the Opening address after an unusual start to the opening ceremony - a choral and dancing performance by the *Peace Train* group. The conference has served to forge greater bonds with the Department of Labour and the professionals in industry responsible for the health of employees.

The social programme was well attended and supported. Over 200 delegates attended the informal function on Monday evening at the Durban Turf club and danced the night away. The same number attended the formal banquet on Wednesday evening, dressed stunningly in black and/or white outfits, and were entertained by a local band who provided background and dance music.

Many professional contacts were made, international bonds and friendships forged and highly informative papers presented over the four days of the conference.

Brenda Webster
PACOH Conference Co-ordinator

Standing l.t.r: Galton-Fonzi (Australia), Colin Grainger, Linda Grainger (speaker - RSA), Penny Mead (President: SASOHN, , Jenny Serfontein (RSA, organising committee).
Seated from l.t.r: Brenda Webster (Conference co-ordinator), Pita Botha (Conference assistant), Dr Bernadine Kuchinski (speaker USA), Mavis Gordon (speaker UK)

Martin and Amanda Lazenby and Marinda and Phillip Lazenby, two brothers married to two sisters all in Occupational Health.

Statement by Mr Tito Mboweni, Minister of Labour at the Pan African Conference on Occupational Health, 1 September 1997, Durban

Please allow me at the onset to add my own words of welcome to all delegates from within and outside South Africa to this all-important conference. The hosting of this conference in South Africa is a welcome development and gives us the opportunity to contribute to the debate on occupational health and safety. But we have to go beyond the debate to reaffirm our collective commitment to a safe and healthy working environment. In our case, occupational health and safety is a fundamental component of our drive to restructure the South African labour market.

More often than not commentators, and at times business, the trade union movement, parliamentarians and legislators spend a rather disproportionate amount of time and energy on labour relations, minimum conditions of employment, labour and wage costs and other seemingly more important issues and they neglect to discuss the occupational health and safety of the working people. This conference could therefore not have come at a more opportune moment in South Africa as this will assist in focusing attention on this crucial subject.

I would like to take this opportunity therefore to express my sincere gratitude to your association for choosing South Africa as your venue for this meeting. It is my sincere wish that the many active people in this field who are gathered here will come out of this conference more determined than ever before to ensure that we have safe working places throughout the African region.

The health of a nation, particularly the health of its workforce, is crucial for economic development and therefore should be adequately provided for when economic activities are engaged in.

To put this rather more frankly and directly, we all, as the role-players in the working environment, have a responsibility to ensure that work should be so organised and arranged in such a way that it does not lead to workers becoming ill, disabled or killed. And in any case, here in South Africa, we are operating within a constitutional order where the Constitution affords everyone the right to a healthy environment and similarly workers have an inalienable right to a healthy and safe workplace. The Department of Labour has the responsibility in law to enforce health and safety at work.

Events of the past few weeks here in South Africa, and in fact as recently as last week, provide a quick reminder of why many workers work under extremely unsafe workplaces. On the 20th of July three workers were killed in Amalinda, East London (Eastern Cape), when the walls of a four-metre-deep excavation caved in; on the 26th of July a swing construction at an Amusement Park in the town of Louis Trichardt toppled due to inefficient maintenance, injuring 16 people - one of whom subsequently died; on the 11th of August, a construction worker in Rosebank, greater Johannesburg, was killed when the trench wall (soil) collapsed; on the 21st of August a worker was killed by an explosion in Jeppestown, Johannesburg, that resulted from the mixing of raw ingredients (chemicals) for exothermic welding; on the 25th of August a worker at Pretoria Metal Pressing was injured, and will probably lose his eyesight as a result of an explosion due to bad/inadequate/nonexistent safety practice by management; on the 27th of August, three workers were killed and 16 injured when scaffolding collapsed at a construction site in Sandton.

I relate these incidents to remind us that too many working families are suffering tragedies such as these and that the competent authorities, working together with workers and management, must remain vigilant to the need for high levels of occupational health and safety. Governments generally need to accord sufficient priority not just to adequate legislation but more importantly to ensuring that their budgets reflect this

fundamental need of the economies of our region. Health and safety budgets must not be seen as yet another budget line to be sacrificed but rather as an important investment for economic development and growth.

I hope that during this conference, delegates will share ideas and experiences of the successes and failures in their respective countries to this matter. Annual statistics that were recently reported indicate that in 1996, workplace injury and illness rates appear to have declined somewhat when compared to those of 1995. But, as I have just indicated, far too many workers are still dying and being injured and our work is far from done.

Let me share with you some statistics to put occupational health and safety in a perspective that would provide some framework of the task that lies ahead. During 1995, 10556 incidents at the workplace were reported to the Occupational Health and Safety division of the Department of Labour (and investigated); of these 942 were fatalities. It should, however, be noted that these figures exclude incidents that occurred in the mines and only represent the formal sector of some 4.8 million workers. According to the latest statistics available from the Compensation Commissioner's office, the average insured costs of an incident increased during the period 1988 from R918.40 to R1395.30 in 1990. Based on an annual increase of 10%, a very conservative estimate for 1995 would be R2244.00 per incident, an increase of about 144% compared to the 1988 costs. Compared to the total compensation paid in 1988 of R166 894 613, the total cost for 1995 should be in excess of R417 000. (In fact the 1995 figure for compensation paid plus provision for unreported claims exceeds R1 billion.) These figures only refer to insured costs as paid out by the Compensation Commissioner. In addition there are uninsured (hidden) costs such as new overtime arrangements when other workers are injured or have died, retraining of employees to stand in for injured colleagues, salaries and resultant lost production.

An estimate of the cost of the incident can be summarised as follows:

Compensation R2 244
Hidden costs (1:1) R2 244
Property damage (1:5) R11 220
Total R15 708.

If one considers that more than 300000 injuries were reported to the Compensation Commissioner in 1996, then at the above minimum cost per injury, it implies a cost to the economy of more than R4.7 billion. But in reality I am certain that it is much worse.

These figures without a doubt paint an alarming picture of the situation at the workplace in South Africa. These are numbers which we cannot afford to be complacent about - whether in human terms or financial. It needs to be addressed more vigorously and with much more of a concerted action by all the role-players than has been the case up to now. And we need to maintain a strong will to ensure compliance with safety regulations.

The Department of Labour in South Africa is pursuing its responsibilities in two ways: (1) by carrying out its statuary obligations to promulgate and enforce protective standards, and (2) by developing new initiatives of cooperative partnership *vis-à-vis* the old traditional enforcement, instil common sense in regulatory and enforcement policies and focus on outcomes rather than numbers.

South Africa is now in a period of transition, reflecting a new political dispensation with new priorities. This period holds both great opportunities and great dangers for the advancement of the occupational health of the workers of South Africa. The opportunities arise with the increased ability of trade unions to negotiate improvements for their members, the increased attention being devoted to health issues affecting the broad masses of South Africans, and improved legislative approaches to occupational health and safety issues. The danger resides in the possibility of occupational health needs being relegated to second position as the government, business and the trade unions face the need for social and economic growth and development.

Transformation process requires all role-players to demonstrate a propensity to enter unknown territory. The wind of change has swept through the country, leaving in its wake a new South Africa that has dawned with breathtaking speed. All facets of our lives have been touched by this breath of fresh air that has created new hopes and aspirations in its wake - occupational health and safety has not been spared its touch. But these changes have to be concretised so that the hopes and aspirations of the workers, with regard to occupational health and safety, are met.

But the government has a broad programme for social and political transformation of our society and it considers the protection of workers' health as one of the basics rights of workers. And consequently occupational health and safety is part of the Ministry of Labour's five-year programme of action, which has taken its cue from the RDP.

In addition, the globalisation process requires of all of us to align our policies at an international level. In this regard, international occupational health and safety standards have to be complied with. International standards such as the Basle Convention, Prior Enforced Consent - dealing with the movement and handling of chemicals, ILO convention on the safe use of chemicals, the Montreal Protocol - dealing with the labelling of imported products, the Biodiversity Convention, ISO standards will all become catalysts for improvement in occupational health and safety and the environment.

Compensation for noise-induced deafness

The Compensation Fund has clarified the position regarding instruction 168 on noise induced deafness. Please refer to "Occupational health Southern Africa 1996; Vol 2, No1: 16 -19 regarding the various parameters used in instruction 168 to calculate the % impairment relative to the decibel sum of the hearing threshold levels (DSHL)

Herewith the confirmation from Mr J M van der Merwe, deputy Compensation Commissioner. "Kindly be advised that the further application of Circular Instruction 168 or the substitution therof by another instruction will be placed before the Compensation Board.

Until such time as I have been received their recommendation Circular Instruction 168 will remain in force."

An occupational health nursing initiative: the Ethembeni Care Centre for employees with AIDS

Members of the Task team
(Listed by company)

Alusaf (Bayside)
Marietiie Bosch, *Occupational Health Co-ordinator*

Alusaf (Corporate)
Jenny Rogers, *Facilitator, Reconstruction & Development*

ATICC (Zululand)
Anneke Potgieter, *Manager*

Mondi Kraft
Christine Viljoen, *Occupational Health Sister*

Portnet
Abdia Naidoo, *Employee Well-being Manager*

Richards Bay Coal Terminal
Sally van Vuuren, *Clinic Supervisor*

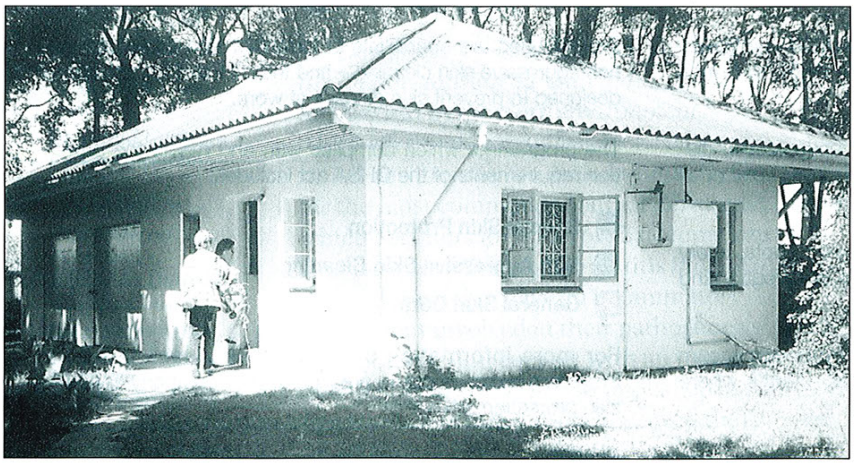
ZCBF
Sibongile Nsibande

Occupational health practitioners of various industries in the Richards Bay area have entered into a partnership to face the problem of AIDS. They have long been concerned about the limited resources available for HIV-infected employees and the total lack of terminal-care facilities for employees with AIDS.

A working group consisting of representatives of some of the involved companies and a researcher from the University of Zululand, Mr F Rabbets, confirmed the need for an AIDS Care Centre to provide for both the needs of HIV-infected employees and the need of employees with full-blown AIDS to have access to a terminal-care facility.

These industries realise they cannot hope to address the global problem but have a responsibility to manage local concerns. This management starts with caring for infected employees. This care also provides an entry point for prevention. Through the counselling and education of infected employees they can greatly contribute towards the management of the epidemic, economically and socially.

The industries involved in this joint venture are Alusaf, Mondi, Portnet, Richards Bay Minerals, Richards Bay Coal Terminal and the local branch of ATICC.



The farm house where the Ethembeni Centre will be

The *Ethembeni Care Centre* is the name chosen for the centre. The symbolic Zulu meaning of this name is *a place of hope*.

The Ethembeni Centre will consist of three divisions:

- An in-unit facility with 10-12 beds for short-term crisis care and the terminally ill. The aim will be to keep the patient comfortable and pain-free and provide constant support.
- A drop-in day-respite facility for temporary relief and counselling where people who are HIV+ may meet, support each other and obtain counselling.
- A facility for the home-base care team which will provide awareness training and basic home-nursing training for the families of the PWAs.

Industry will derive great benefit from the centre, as the home-base care unit will provide those infected and affected with the knowledge and assistance to remain healthy and productive as long as possible. It is generally understood that where support services are offered to employees with HIV and AIDS, the knowledge that they will be helped and not discriminated against assists to dispel rumours and fears that add to the tendency to conceal the disease.

Opportunities for research will be available which could make valuable contributions to the management of HIV/AIDS nationwide and the project will be assisted by the Hlabisa Hospital link to the Liverpool School of Tropical Medicine and the Medical Research Council through Dr David Wilkinson.

The South African Red Cross Society has pledged the necessary staff training.

HIV-infected and -affected people need help and skilled qualified support. They cannot face this on their own. The Ethembeni Care Centre will offer invaluable support and counselling. It is hoped it will be launched on 1 December, World Aids Day.

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Occupational skin diseases in South Africa: dealing with a hidden epidemic

J H Stark,[1] L Roodt,[1] C Packham[2] and G Todd[3]

Abstract

Occupational skin disease is any abnormality of the skin induced or aggravated by the work environment. By far the most common form is contact dermatitis, which may be caused by irritants or an immune response to sensitizing agents. Early diagnosis is important since continued exposure often leads to the development of chronic disease; identification of causative agents is equally important for control and management of disease since without *contact*, there is no contact dermatitis.

No accurate statistics on the frequency of occupational skin diseases in the general population of any country are known. It is conservatively estimated that 250000 South Africans suffer from occupational contact dermatitis and this figure is set to increase. The Scientific Committee on Occupational Dermatoses has been set up under the auspices of the South African Society of Occupational Medicine (SASOM) to guide a national Occupational Dermatoses Initiative. The aims and achievements of this initiative are discussed in this article.

Jennifer H Stark,[1] Lea Roodt,[1] Chris Packham[2] and Gail Todd[3]

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Introduction

Occupational skin disease is defined as *any abnormality of the skin induced or aggravated by the work environment.*[1] Although the skin manifestations of occupational dermatoses are varied (Table I), by far the most common is contact dermatitis which accounts for >90% of all occupational skin diseases.[2] Contact dermatitis includes all conditions that have an inflammatory component involved in their pathogenesis[1] and is due to skin contact with an irritant or allergen, or both. Although published figures vary, it is generally accepted that 70-80% of contact dermatitis is a non-immune reaction caused by skin irritants. An immune reaction to allergens accounts for the remaining 20-30%[3] (Table II). According to the US National Safety Council,[4] as many as one in four workers in the formal sector are exposed to skin allergens or irritants. However, if one considers that water, paper, clothing, personal protective equipment and barrier creams also contain potential irritants or allergens, then all workers are exposed. So far 35000 substances have been identified as potential skin irritants and 3500 as skin allergens.[4] Although occupational contact dermatitis is not life threatening, it can cause much discomfort to affected workers and is an important cause of decreased productivity.[3] Early diagnosis and identification of causative agents are important, since continued exposure often leads to the development of

Table I: Occupational skin diseases

- **Physical causes**
  - Mechanical trauma
  - Thermal injury
  - Pressure effects
  - Vibration effects
  - Radiation damage
- **Biological causes**
  - Viral
  - Bacterial
  - Fungal
  - Parasitic
  - Bites and stings
- **Contact dermatitis**
  - Contact urticaria
  - Allergic contact dermatitis
  - Irritant contact dermatitis
- **Acne**
- **Malignancies**
- **Connective tissue diseases**
- **Systemic toxicity**
- **Aggravation of pre-existing conditions**

Table II: South African compensation statistics

Disease	Year of assessment			
	1987	1988	1989	1990
Occupational contact dermatitis	34.7%	31.6%	28.0%	22.0%
Silicosis/asbestosis	62.5%	64.9%	62.7%	70.0%
Other	2.8%	3.5%	9.3%	8.0%
Total number of cases	144	117	118	128
Number of OCD cases	50	37	33	28

Compensation Commissioner, Department of Labour

Table III: Scheduled occupational skin diseases[5]

- Allergic and contact dermatitis from dust, liquids or other external agents or factors
- Malignancies of the lung, skin, larynx, mouth cavity or bladder due to coal-tar, pitch, asphalt or bitumen or volatiles thereof
- Malignant melanoma from polychlorinated biphenyls
- Any disease from ionising radiation from any source
- Any disease or pathological manifestations of beryllium, cadmium, phosphorus, chromium, manganese, arsenic, mercury, lead, fluorine, carbon disulfide, cyanide, halogen derivatives of aliphatic or aromatic hydrocarbons, benzene or its homologues, nitro- and amino-derivatives of benzene or its homologues, nitroglycerine or nitric acid esters, hydrocarbons, trinitrotoluol, alcohols, glycols or ketones, acrylamide, or any compounds of the afore mentioned substances.
- Hand-arm vibration syndrome (Raynaud's phenomenon) from vibrating movements
- Erosions of the tissues of the oral cavity or nasal cavity from irritants, alkalis, acids or fumes thereof
- Anthrax
- Bovine tuberculosis
- Brucellosis

chronic disease. Without *contact*, there is no contact dermatitis, a theme central to the management of occupational contact dermatitis. This permits many possibilities for imaginative and often inexpensive prevention strategies and, where intelligently implemented, these have been remarkably successful.

No accurate statistics on the frequency of occupational skin diseases in the general population of any country are known. Available statistics are those generated by government compensation agencies and these are generally accepted as gross underestimates due to under-diagnosis, under-reporting and misclassification. It is clear from South African statistics (Table II) that the problem of occupational skin disease remains largely unrecognized. In South Africa compensation is regulated under the Compensation for Occupational Injuries and Diseases Act (COIDAct) No 130 of 1993.[5] Schedule 3 reflects the listed scheduled occupational diseases for which compensation is paid (Table III). Of importance is the fact that the Act makes provision in Section 65(1)(b) for non-scheduled diseases to be recognised for payment of benefits provided it can be proved that the condition is work-related. Since 1987, there has been a steady decline in compensation, which was paid to only 28 people in 1990 according to the latest available figures from the Commissioner's office (Table II).

A total of R8000 was paid, comprising R3000 for medical expenses and the remainder as compensation for temporary disablement.[6] No compensation was paid for permanent disablement, despite the fact that occupational skin diseases may lead to permanent impairment,[7] requiring a change of occupation or an inability to work. A recent study of 230 Canadian workers with occupational skin disease showed that, as a direct result of their disease, 38% had changed jobs within two years of diagnosis.[8] Burrows[9] has shown that most workers forced to change jobs because of occupational contact dermatitis suffer significant loss of income. Furthermore, factors associated with occupational dermatitis, such as depression, problems with co-workers, pressing family responsibilities and low pay may all impact on an afflicted worker's productivity and quality of life.[10]

The true rate of occupational contact dermatitis is probably several orders of magnitude higher than compensation statistics suggest and can be estimated by determining the prevalence of hand eczema in employed adults, since many of these are likely to be work-induced.[3] No such studies have been done in South Africa, but prevalence data from other countries show a range of 2-11.8%.[11,12] Applying a figure of 5% to the 1995 Household Survey figure of 10 million employed South Africans[13] converts to 500000 people with hand eczema. If only half of these are work-induced, it can be seen that occupational contact dermatitis in particular, and occupational skin disease in general, are affecting a large number of South Africans; and the costs to employers and employees, when finally calculated, will be high. Add to this the relatively high level of industrialisation in this country, government commitment to a policy of economic advancement which is set to increase industrialisation even further, and a large informal sector that includes high-risk groups such as domestic workers, and it becomes clear that occupational skin disease is an issue which can no longer be ignored.

To address this, a Scientific Committee on Occupational Dermatoses has been set up under the auspices of the South African Society of Occupational Medicine (SASOM). The Scientific Committee has committed itself to guide a national Occupational Dermatoses Initiative (ODI), and any suggestions from interested role-players will be welcomed.[14]

The aims of the ODI are as follows:

- To raise the level of awareness about the occurrence and diagnosis of occupational dermatoses.
- To identify ways of addressing problems pertaining to workplace-associated dermatoses.
- To explore ways of preventing occupational dermatoses.
- To implement a National Project for surveillance and data collection.
- To conduct research into occupational dermatoses in South Africa.

Some progress towards realizing these aims has already been made. In October 1996, four countrywide one-day workshops were held in Durban, Cape Town, Port Alfred and Johannesburg. These were so successful that subsequent two-day workshops were held in Durban, Cape Town and Johannesburg in May this year. Presentations aimed at increasing an awareness of occupational skin disease have been given to diverse groups including health providers, beauticians, health and safety officers, workers, managers and insurance assessors. Occupational skin allergy will form part of the ALLSA-Novartis Allergy Alert Programme, with public meetings scheduled to begin in October 1997. Under a train-the-trainer scheme, the World Health Organization will sponsor a South African to undergo short-term training overseas in November 1997, returning to share the knowledge thus gained with other occupational healthcare workers.

It is imperative that accurate South African statistics are obtained. This can only be achieved through the introduction of a national data surveillance system, and similar systems in the United Kingdom and Europe are presently being examined to determine their suitability for application in South Africa. Such a databank will provide information on the prevalence of different types of occupational skin diseases, high-risk industries and occupational dermatoses effects on productivity. This information can then be used to determine relevant areas for research, priority areas for funding and where prevention strategies can most effectively be implemented.

In order to be truly successful, an initiative of this nature will require the collaboration and support of many different role-players, including government departments, non-government organisations, health-service providers, trade unions, workers, health and safety officers, management, large industry and academics. The Scientific Committee has made a start, but the outcome will depend on the level of commitment of everyone concerned with worker health. We view this article not only as a means of heightening awareness about the problem of occupational skin disease in South Africa, but also as an appeal for your energetic and enthusiastic support.

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    e-mail: jstark@ncoh.pwv.gov.za

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Case Study

Epoxy resins as a cause of occupational dermatitis:

case studies illustrating the problems in diagnosis and management of occupational dermatitis in practice

Dr H Carman

Abstract

Epoxy resins are used extensively in households and in industry. Both the resin itself and the hardeners may cause allergic contact dermatitis. Three patients were shown to be allergic to epoxy resins in industrial settings. In only one of the three was the outcome satisfactory. The case studies illustrate some of the practical difficulties in dealing with occupational dermatitis.

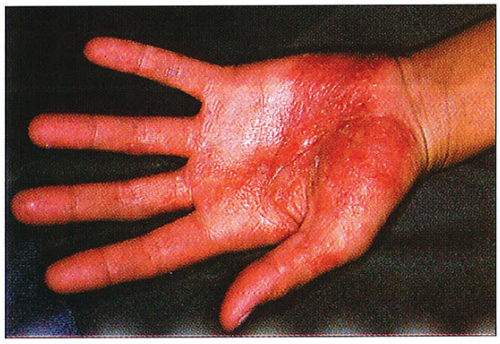

Figure 1: Contact dermatitis of hands due to direct contact with epoxy resin.

Figure 2: Spread of dermatitis to the legs following exposure to polyamine hardener fumes.

Introduction

Epoxy resins are used extensively in industry and households. They are versatile and are used variously for casting models, as electrical insulation, in floor coverings, for mending cracks in concrete, and for laminates and composites. They are used as glue to cement metal, rubber plastics and ceramics, and are claimed to cement "anything to anything". They are used in solvents for painting, and in powders for electrostatic hard coating of metal. Fibres of carbon, glass and nylon are combined into epoxy resin systems to produce composite materials of great strength.[1]

The epoxy resin system consists of an uncured liquid resin which is combined with a "hardener" to form the hard, cured, final product. In general, the final plastic product is inert and neither irritating nor sensitising.[2] However, total curing is unlikely at room temperature and so there may be residues of the uncured resin or the hardeners. Both the liquid epoxy resin and the hardeners are causes of allergic sensitisation and dermatitis (Figure 1).

Dr Hilary Carman, Johannesburg

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Various resins are used. The lower the molecular weight, the higher the sensitising potential. Bisphenol-A is available for patch testing in the European standard patch test series. This is a battery of commercially available patch tests using materials found to be the commonest sensitisers.

The hardeners are the curing agents which speed up the polymerisation of the epoxy resin to result in the hardened finished product. There is a host of chemicals that are curing agents but of these the amine hardeners are the most important sensitisers, for example, the aliphatic polyamines (Figure 2). These may be diluted in water to a 0.1% solution or used as a 1% concentration in petroleum for patch testing. In higher concentrations the hardeners are caustic and will irritate or burn the skin.

Case studies

Three patients were diagnosed as having epoxy resin dermatitis:

Mrs M had worked in an electronics factory on the East Rand for one year, glueing component parts onto a board with epoxy resin glue.

She presented with severe dermatitis on her face and arms. The rash tended to clear over long weekends away from work. On testing with the standard patch test series, she showed a positive reaction to Bisphenol-A and kathon, thus confirming the diagnosis of occupational dermatitis.

She was moved from this section to another in the same factory and the problem was solved.

Mr V, aged 59 years, is a toolmaker and has worked for a glass plant since 1978. Dyes or moulds, which are used in the manufacture of glass bottles, are made of hardened epoxy resins systems. Mr V worked in a department in which he was in contact with liquid epoxy resin, as well as oil coolant. He developed dermatitis in 1982, but continued to work in this department for the next twelve years. In April 1994, he was moved to another department, where he was in contact with cast-iron dust, hardened epoxy dust, and shavings. The rash continued and he consulted a dermatologist in November 1994. He gave a clear history of the rash resolving when he stayed away from work. On examination, he had diffuse extensive dermatitis on his face, neck, hands, and arms. The standard patch test series was performed. He was also tested with shavings from the hardened epoxy material and cast-iron dust. He reacted strongly to the Bisphenol-A, as well as to the shavings and cast-iron dust - the cast-iron dust probably contained hardened resin. He had thus become exquisitely allergic to epoxy resin, even in the small quantities in which it was present in the hardened product. Protective clothing would not have been a practical solution.

It was therefore recommended that he should be removed to an area where there could be absolutely no contact with the resin in any form or, better still, that he should retire on full pension.

However, he was obviously a highly valued worker and he himself felt great loyalty and affection for the company. He chose to stay in full employment. A year later, he was still working and still suffering from extensive dermatitis, which was responding, to some extent, to cortisone creams.

Mr G, aged 51 years, is a chemical engineer from Hungary. He is a research scientist. His field of expertise is the development of different epoxy resins and hardeners. He worked in this field in Hungary. Since immigrating to this country ten years ago, he has worked in a small chemical firm. In November 1993, he developed a florid eczematous eruption on his hands, neck, and eyelids. On patch testing, he was negative to Bisphenol-A, but positive to ethylenediamine, which is known to cross-react with amine hardeners. He reacted positively to seven different amine hardeners with which he worked. They comprised aliphatic, cycloaliphatic, and aromatic amines, and were tested at 0.1% in aqueous solution. Since that time, he has had about six episodes of severe flare-ups of dermatitis, requiring repeated courses of oral cortisone and sick leave.

It was quite clear that he should no longer have any contact with epoxy glues. His manager did employ a laboratory assistant for him and this may have helped to some extent. However, like the previous patient, he is exquisitely sensitive - simply walking into the laboratory provides enough exposure to provoke a flare-up.

It is impossible for him not to work with epoxy glues - this is his field of expertise. The difficulty of changing careers is compounded by the fact that he is an immigrant.

Discussion

Recommendations

1. All patients who are suspected of having occupational dermatitis should be asked about contact with glues and epoxy resin systems. Many cases of epoxy resin dermatitis are probably being missed.

2. The substances in the European Standard patch test series that are relevant are Bisphenol-A and ethylenediamine. However, because numerous other substances may be relevant, the components of the glues with which the patient actually works should be identified and tested, in the correct concentrations, to prove the diagnosis of epoxy resin dermatitis. The hardeners are volatile and more likely to cause dermatitis on the face and eyelids.

3. In the factory environment, the following measures should be taken:

- Exhaust hood facilities and adequate ventilation to protect against inhalation of vapours should be provided.
- Workers should wash their hands and faces after contact with the resins.
- Workers should wear gloves and masks.

NB: Epoxy resins penetrate rubber and heavy-duty vinyl gloves should be used.

Conclusion

These case studies illustrate the difficulty of dealing with workers who develop allergic contact dermatitis in an occupational setting. The first patient, Mrs M, could not wear vinyl gloves because of the fine nature of her work. Her problem was solved by management moving her to a different department. As an unskilled worker in a large factory, this was an easy task.

The outcomes for the second and third patients were highly unsatisfactory. Although neither patient was directly in contact with the epoxy resin systems, the fumes of the hardeners in the case of Mr G and the resin dust in the atmosphere of the factory in the case of Mr V continued to provoke dermatitis.

Possibly not enough had been done in either setting in the way of ventilation and exhaust facilities. However, both patients were exquisitely sensitive. In an ideal world, alternative careers would have enabled them to avoid epoxy resins altogether.

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The nurse's responsibility in reporting occupational asthma

SA Murdoch

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Occupational Health SA 1997; Vol 3, No 6: 22 - 23

Introduction

The **occupational health nurse** has a vital role to play in the detection and reporting of **occupational asthma**, which was legislated as an addition to the Workmen's Compensation Act, 1941 (Act No 30 of 1941) in December 1992, now the Compensation for Occupational Injuries and Diseases Act 130 of 1993. The nurse can also play an important part in preventing or minimising disease in the workplace.

Asthma is a common disease which affects both children and adults. In South Africa, between 5-10% of the population suffers from asthma and it is one of the most under-diagnosed or misdiagnosed diseases in the world. Asthma is a long-term inflammatory disease of the airways and is characterised by the increased excitability of the airways resulting in narrowing. This bronchospasm is usually reversible. However, if untreated or poorly treated, it may result in some permanent obstruction.[1]

The definition of occupational asthma is *any occupation in which a workman is exposed to the inhalation of one of the listed sensitising agents which lead to the development of the disease.*[2]

Prevention

1. Pre-employment: Precluding asthmatics from being employed to work in an environment where they would be exposed to the inhalation of sensitising agents. Skin-prick tests, using common allergen extracts as well as specific agents pertaining to the proposed new work environment, are also used if indicated in certain industries on pre-employment.

2. Educating both the management and the workforce to include the installation of controls to regulate the environmental exposure where sensitising agents are used. The worker should be informed, trained, encouraged and finally compelled to use personal protection.

3. Redeploying workers who show early signs of reversible bronchospasm, placing them away from possible sensitising agents.

4. Restricting and discouraging smoking in the workplace is of value, since smoking is likely to increase the incidence of occupational asthma in some cases.

Detection and assessment

1. Routine periodical screening including spirometry and/or peak expiratory flow readings.

2. Monitoring frequency of asthmatic attacks.

3. Scrutinising sick absence and sick notes, looking out for any suggestion of bronchospasm.

4. Liaising with management, employees, doctors and hospitals.

Diagnosis and treatment

1. Treat bronchospasm as necessary with salbutamol inhaler or nebuliser.

2. Endeavour to establish cause of bronchospasm and whether it is work-related. This can be done by arranging for the affected worker to do serial peak flow measurements on and off duty which would demonstrate the response to being at work and the pattern of the asthma.

3. Sensitisation can be confirmed by serology such as a RAST test and skin-prick tests, when and where applicable.

4. Bronchial provocation tests can be done but they could be very risky and must be done under strict medical supervision.

5. Referral to a specialist, a pulmonologist, may be indicated.

6. The National Centre for Occupational Health can be used for a full assessment and confirmation diagnosis. Any worker with a

suspected work-related asthma can be referred.

The following information is essential:

a) Brief history and clinical summary

b) Details of occupational exposure

c) Results of special investigations

d) Identification document

e) Employment records.

Remember that the patient should not smoke or drink alcohol for at least twelve hours before the appointment.

7. Report case to the Commissioner for Occupational Diseases by completing specific forms: W.CL.1(E); W.CL.26; W.CL.14.

Further information for submission should include the following:

a) History of asthma, both pre- and post-employment.

b) Specification of inducing agent(s) since employment.

c) Exposure time.

d) Diagnosing techniques used, for example, spirometry.

e) Date of diagnosis.

f) Employment history or work profile.

g) Smoking history is optional but often very relevant.

Conclusion

The nurse plays a central role in the proactive prevention and in the coordination of management of occupational asthma. The nurse has tremendous responsibility to ensure that the correct procedures in reporting the disease are carried out, if the worker is to be afforded fair treatment and be compensated where indicated.

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

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

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

Journal references, e.g.

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

Book references, e.g.

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

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

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The road to effective TB control

A review of the Tuberculosis (TB) Control Programme by World Health Organisation experts in June 1996 revealed that, because of the increase in TB cases and increase of HIV, South Africa had one of the worst TB epidemics in the world. This news sent a shockwave through South Africa and led to the questioning of the country's control effects. Although TB is almost 100% curable, in 1996 alone 10000 South Africans died of TB and 160000 people became sick with TB. Most of these people were young adults, still in their economically active years.

These figures give a picture of why there was a need for change in our TB Control efforts. The WHO warned that our previous TB control methods were just not effective enough and if we are to gain control of this killer disease TB should be a health priority on everyone's agenda. Since the review, the National TB Control Programme has gone on an offensive against TB. A new strategy called DOTS was introduced. DOTS stands for Direct Observed Treatment Short-course and is the only effective internationally recognised TB control strategy. DOTS has a number of components that prevent factors that may hinder effective TB control at its source.

This article will touch on some of the components.

• DOTS ensures that every TB patient should be directly observed by a treatment supporter as they swallow their medication every day for a minimum period of six months. Because of the length of time involved, completing TB treatment is a special challenge and requires an unyielding sense of commitment. This may be easy to sustain while the patient feels sick. However, after a few weeks of taking treatment, patients often feel better and see no reason for continuing their treatment. They do not understand that the bacteria are still in their system and by taking TB treatment on and off the possibility of Multi-Drug Resistant (MDR) TB increases. MDR is a complicated, almost incurable type of TB and is very expensive to treat. For example, out of the 160000 TB cases in 1996, 18% of patients interrupted their treatment. This means at least 28800 people who started on treatment did not complete it and therefore were not cured. In the same year, 2000 people had MDR and the possibility of surviving this type of TB is worse than most cancer cases. Two thirds of MDR cases are dead within three years. In fact the difference between this type of TB and AIDS is that MDR is a bacterium that lives in the air and anybody can inhale and be infected with it. These are a few reasons why it is so important for TB patients to complete their treatment and be cured so they can no longer spread the disease.

We must take serious measures and provide support for TB patients to ensure treatment completion. The treatment supporter does not have to be a professional health worker but this responsibility can be shared among any responsible members of the community. Employees, colleagues, family members and community leaders can act as treatment supporters. These people can be trained on signs and symptoms of TB, side-effects of TB drugs and the importance for the patient of taking TB medication. In turn they are also expected to educate the patient on these issues. This will help to empower patients and their families and provide them with a better understanding of TB.

• TB is a bacterial disease and we need to use bacterial tools to manage the problem. Although chest x-rays (CXR) are a commonly used method for diagnosing TB, the National TB Control Programme (NTCP) is moving away from CXR as a primary method of diagnosis. One of the most crucial elements of DOTS is to use microscopes to ensure that TB is diagnosed in a reliable and least expensive way. Our first priority in the new programme is to cure the infectious patients at the very first attempt. If we are not able to cure 85% of infectious patients, we are not slowing down the epidemic.

The use of CXR is discouraged, firstly because a CXR does not tell whether a patient is infectious, and secondly because it is difficult to distinguish between TB and other occupational diseases, like silicosis, on a CXR. Diagnosing with a CXR means that we could be treating patients that do not have active TB and are not sick with TB. Unlike the CXR, microscopy identifies infectious TB patients and within two weeks of treatment these patients will no longer be infectious. More importantly the TB epidemic in South Africa is approaching uncontrollable levels and we need to concentrate all our energy on curing infectious TB patients to stop the spread of this disease at its source.

• Part of the problem with previous TB control efforts was that the importance of monitoring TB patients was played down. Now an emphasis is placed on following up on the progress of patients until they are cured. Treatment interrupters will be detected easily and followed up so they can continue their treatment. Sputum examination must also be recorded to provide documentation of cured patients. On a broader level these kinds of data allow key decision-makers to be able to determine areas which need support.

DOTS as a system is a breakthrough that can provide solutions to the TB epidemic in South Africa. However, it is a strategy and as such may seem at first complicated and confusing. This merely shows the need to train health staff and treatment supporters effectively and adequately on the DOTS strategy. The only way to gain control of this killer disease is to commit ourselves to effective TB control and to put TB on our agendas. This means that each of us, no matter from which sector, has a major role to play. TB is everywhere and, as such, effective TB control should be practised everywhere.

TB in the workplace: an overview

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1997; Vol 3, No 6: 25 - 28

TB is an infectious disease caused by a bacillus - *Mycobacterium tuberculosis*. It is the most important infectious disease, killing more than 10000 South Africans per year (one every 40 minutes). TB affects ±140000 people per year in this country (the national incidence of TB in 1995 was estimated to be 340 per 100000[3]), and 80% of all communicable disease notifications are for TB.[1] The tragedy is that this disease is curable.

Until fairly recently it was thought that the disease was under control. Now we know that, far from becoming less prevalent, we have instead a crisis of epidemic proportions and the World Health Organisation and the Department of National Health and the various provincial health authorities in South Africa have declared TB to be an emergency in their various areas. Without effective intervention this situation will deteriorate further (Figure 1) and a programme has, therefore, been implemented to gain control: the National Tuberculosis Control Programme (NTBP).[2]

The objectives and goals of the NTBP are to identify 70% of all people with sputum-positive pulmonary TB, and to cure 85% of these people.[2]

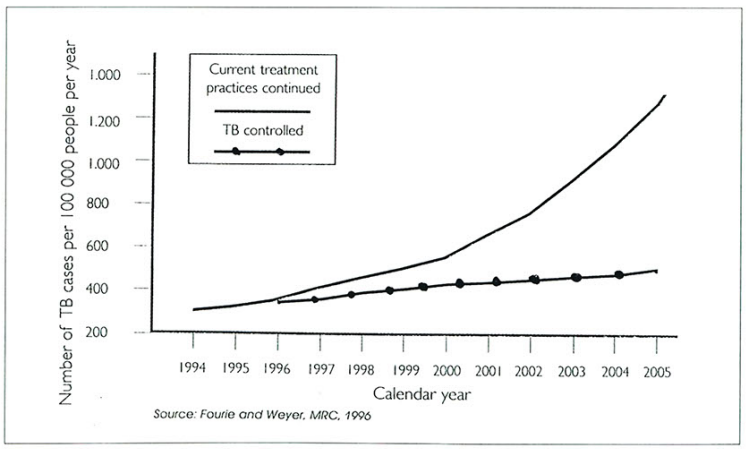

Figure 1: TB spread in South Africa

The challenge

According to the *Practical Guidelines*[2] of the NTBP, all diagnoses must be made on microscopic investigation of sputum only. Active case finding is not encouraged. To identify people with sputum-positive disease, we need to get them to refer themselves for investigation. Sufferers need to be told the signs and symptoms of TB; to know where to go for help, and to be sure that the help on offer is effective. They need to be certain that they will not be stigmatised or lose their jobs and that they will be cured. This will, of necessity, involve an in-depth educational programme.

Once diagnosed, patients are slotted into directly observed therapy (DOTS), the treatment programme with medication provided free for six months.

TB infection

As pulmonary tuberculosis is spread by infection from a sputum-positive TB sufferer to a susceptible contact, this is where intervention has its greatest preventive influence on the epidemic. The individual with infectious pulmonary TB will probably have had a productive cough for three weeks or more; be losing weight, not sleeping or eating well, not feeling well, lack energy and may suffer from chest pain and produce bloodstained sputum. Importantly, he will have been in close contact with someone with similar symptoms, perhaps a member of the household, someone who uses the same transport to work or who shares an office or workplace. This contact may not necessarily be recent. TB can lie dormant in the lungs or other sites while the infected person is well enough to contain the infection, but lowered resistance causes the bacillus to multiply.

At this point the lucky patient sees a doctor or nurse who is "aware", and he is recognised, diagnosed and treated. The unlucky individual is subjected to a whole battery of unnecessary and invasive diagnostic

procedures and finally put onto unsuitable treatment which will not cure him.

Risk factors

TB can and does affect anyone, but the chances of a well-nourished, healthy individual succumbing are remote. What then are the risk factors?

They are anything which attacks the immune system and lowers resistance. Any infection can leave one vulnerable, as can malnutrition; poor housing; overcrowded, poorly ventilated vehicles combined with long travel time; and winter with its coughs, colds and flu. Other people at risk are those who have had organ transplants, are on kidney dialysis, or are taking immunosuppressive medication for any other reason. HIV infection is probably the best-known cause of a deficient immunosuppressive response system. At present, the incidence of HIV-linked TB in the SANTA TB treatment centres is ± 25% (personal communication). However, the national estimate is 27% with a widely varying provincial incidence (Table I). Asthmatics are particularly susceptible, as are drinkers and smokers.

These are the reasons why tuberculosis is known as a socio-politico-economic disease, and why it is absolutely essential to have the active support and commitment of both politicians and employers.

Risk factors for migrant workers

As stated above, TB is an infectious disease caught from someone with TB who is coughing.

Since the working person earns a salary, he eats and lives fairly well, so is somewhat resistant to TB. However, when he goes home his living conditions may change and his resistance drops. If he is harbouring the disease then, or comes into contact with an untreated patient, he will bring TB back to his workplace at the end of his vacation. He will become ill in a matter of months, and possibly give the infection to co-workers who may develop TB or who may harbour the bacilli until such time as their resistance drops and they become ill. These delays in developing the disease make finding the source of the infection and contact tracing extremely complicated.

Table I: TB and HIV in South Africa

Provinces	TB incidence per 100 000 people	Estimated TB Cases	Proportion of TB cases HIV-Positive
Eastern Cape	504	34 371	20.4%
Free State	282	8 272	32.1%
Gauteng	375	26 378	25.2%
KwaZulu/Natal	381	34 178	45.0%
Mpumalamga	286	8 716	39.5%
Northern Cape	340	2 675	13.6%
Northern Province	260	13 927	16.7%
North West	271	9 557	25.9%
Western Cape	559	20 615	12.0%
South Africa	362	158 689	27.0%

Diagnosis and treatment

TB is diagnosed in a number of ways, largely depending on the type of infection:

Pulmonary TB ought to be found by testing a specimen of sputum coughed up by a TB patient. Sometimes a chest X-ray will show TB. Early pulmonary TB can also be found in bronchial washings or from a lung biopsy.

Other forms of TB are usually found on biopsy or smear taken from the site of the infection. A blood test may show TB, but the polymerase chain reaction test is used mainly to determine the type of *Mycobacterium* where some doubt exists at diagnosis.

The classical Mantoux skin test is not as fast as the strip test, but it is sensitive and accurate. However, it has to be "read" after three days.

The Mono-Vac test is also a skin test. Although not as accurate as the Mantoux test, it is suitable for young children who cannot be persuaded to provide a sputum specimen and who should not be X-rayed.

When someone is found to have a positive sputum test, they are immediately put onto treatment. The next step is to find and screen everyone with whom they have been in close contact. This implies sharing a room for hours per day or night, or riding in the same taxi to and from work.

Screening is done for two reasons: firstly to find out where this new patient acquired his infection, i.e. the index case; and secondly to see with whom he has shared it.

Treatment consists of at least six months of antibiotic, anti-tuberculous medication. It always takes at least four drugs to start with, reducing to three and then to two until the six-month course is completed.[2]

TB can be safely and effectively treated in the community. Patients do not need to be

hospitalised unless they are extremely ill; or have some other condition needing hospital care; or cannot (or will not) take their treatment daily as prescribed. People with "normal" infectious TB become noninfectious within two weeks of starting treatment. They therefore only need two weeks' sick leave before being safe to return to work.

Drug resistance

Patients who do not complete the course run the risk of developing drug-resistant disease. This form of TB cannot be cured because the patient has either contracted drug-resistant disease or has allowed his bacilli to become resistant to the usual TB drugs - MDR TB. If he passes this on to someone else, they too will be incurable or at least extremely difficult and expensive to treat. Drugs, which may be either less effective, or toxic, or both, will have to be prescribed. In any event, the course of treatment lasts much longer than the initial six months (usually nine to twelve months).

This problem, unfortunately, is on the increase for a number of reasons:

1. Within two to three months of starting treatment the patient feels "cured", so he stops taking his medicines.
2. He suffers side-effects which are not explained to him.
3. He is frightened of losing his job because of his frequent visits to a clinic.
4. He tries to get treated by his general practitioner and runs out of money or medical aid benefits.
5. He contracts MDR TB from someone who is already resistant.

DOTS - short course[2]

This is a system for helping patients through their long walk to cure. It involves someone watching the patient swallow his pills five days a week for six months or longer. The idea is that the "supporter" will help and encourage the patient over the patches where he would otherwise stop taking his pills. The helper will also keep in contact with the clinic and inform them of any problems the patient has or develops.

The person undertaking this support needs very little training. All he needs to know is who to contact when problems arise. He does not have to solve the problems, merely to call in help. A supporter can be a spouse, a parent, an employer, a teacher, friend or neighbour - in fact anyone prepared to make a six-month commitment.

Under other names, DOTS has been practised sporadically, particularly in the workplace, in various areas of South Africa over the past ±20 years.

DOTS in the workplace

The workplace is one of the first places where the forerunner of DOTS was implemented in Johannesburg. In 1979, the then Johannesburg City Health Department started a programme called *Supervised Treatment*, and workers with TB were targeted.

A Senior Community Health Nurse visited the employers of all the newly-diagnosed working patients in order to elicit their cooperation and active participation in the programme. Treatment with oral medication had only just become really effective. Rifampicin was becoming widely used and patients were being cured in six months, but it was expensive. Streptomycin, though still being prescribed, was used less and less because of the need to administer it intramuscularly.

Employers were asked to nominate a staff member who would be responsible for seeing that the patient took his pills every working day. This responsible person was at first a foreman, a first-aider or someone in the personnel department. Later this task was delegated to the Occupational Health Nurse. In many industries this remains the usual practice - with excellent cure rates and wonderful cooperation with local authority health services.

It is to be hoped that this practice will continue and that all health professionals dealing with this ancient plague will work together with enthusiasm to combat TB.

The role of the employer in TB control

People spend approximately a quarter of their adult lives at work. They are, therefore, at risk of contracting whatever communicable disease is prevalent at work for that quarter of their adult time.

Work itself is an intrinsic stress factor as are the journeys to and from work. In some occupations there is a greater or lesser potential for industrial injury or disease. The law has made it the responsibility of the employer to ensure a safe working environment for staff. Where the environment is hazardous, the employer is obliged to provide protection and to ensure that the worker uses such protection. This includes proper train-

ing, both in the use of protective devices and in performing his job properly.

It would be of value to the health-service providers, employees and the employer if active participation in the TB control programme were made obligatory, too. Occupational health services could be extended to provide a TB screening service. This could either be an annual event or an *ad hoc* occurrence when a staff member develops symptoms, e.g. testing the sputum of all long-term coughers. Although this is not a recommended screening procedure, an annual chest X-ray may pick up pathology other than TB. Chest X-rays also have the advantage of being fairly economical of time for the employer.

Employers also benefit by saving time and money on workers visiting health services, taking sick leave, needing relief workers to fill temporary vacancies, and all the other health-related expenses which can be controlled by good preventive, promotive and early detection services. The benefit to health-service providers is self-evident.

Employees benefit by having an important hazard in their lives controlled at work with little loss of working time and by not having to go to a health facility.

Workers who do not have medical aid benefits seem to make very little use of available health services - presumably because of the costs and risk of losing their jobs.

Existing occupational health services can easily be expanded for this purpose. Treatment support does not need trained people. Nor is a great deal of expensive equipment required. Chest X-rays are not necessarily expensive and neither are sputum tests very costly.

Authorities & organisations responsible for TB control in South Africa

TB control in this country is the responsibility of the provincial health services. In certain cases this duty has been delegated to others. All major local authorities, where sophisticated community health service infrastructures exist, are responsible for TB control.

Most TB inpatient care is done by the South African National TB Association (SANTA). They have established 22 treatment centres around the country - providing care for more than 5000 TB sufferers on any given day. Other private hospital groups also provide inpatient care for TB patients.

Diagnostic services are mainly the responsibility of the South African Institute for Medical Research (SAIMR). Other laboratories with microscopic services are also able to diagnose TB but their charges are somewhat higher than SAIMR.

It is envisaged that in the near future SANTA will have microscopy services at all their treatment centres. There are also plans afoot for SANTA branches countrywide to offer similar services in less accessible areas.

At present SANTA, Johannesburg Branch, has a mobile mass miniature chest X-ray screening service which they sell to commerce and industry. The proceeds help pay for the support given to needy TB-affected families.

References

1 *Department of Health. TB, the disease. Masiphile 1997;1:2-3.*
2 *Department of Health. The SA TB Control Programme - Practical Guidelines.1996;(i)*
3 *TB Research Programme, MRC, Pretoria*

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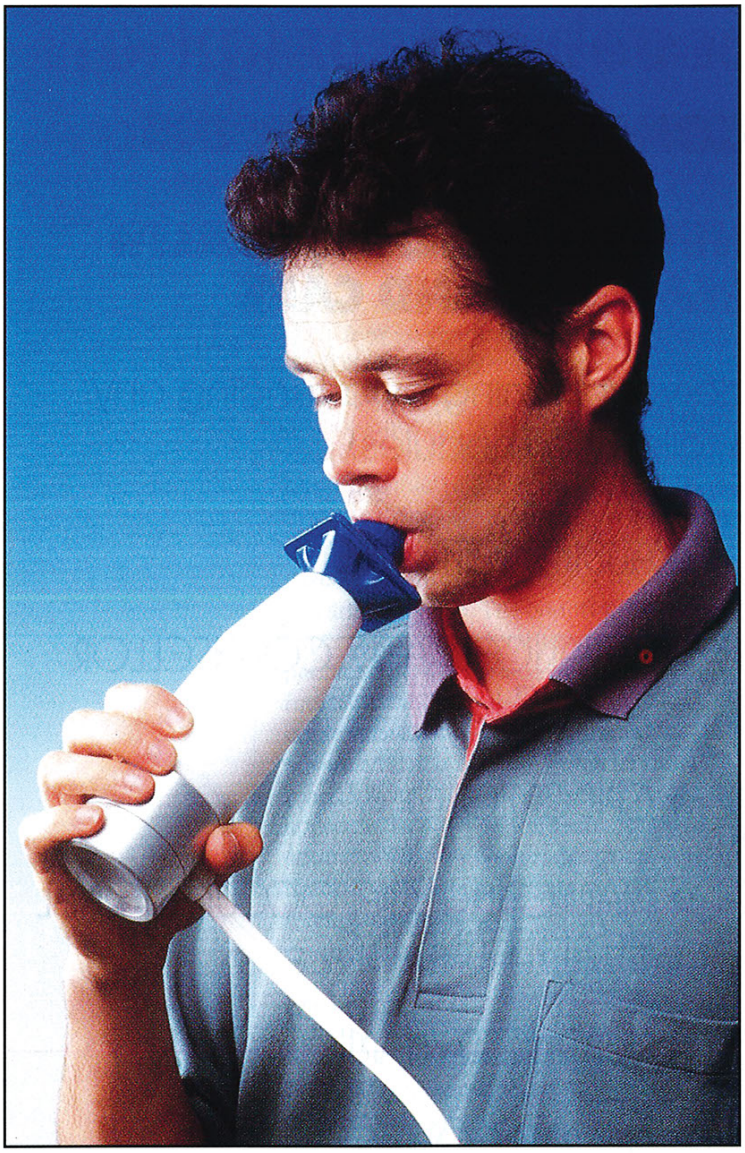

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Responding to AIDS in the workplace - a decade later

A personal view of some critical issues

Dr Clive Evian

It is now 16 years since the first cases of AIDS (pneumocystis pneumonia) were reported in the MMWR.[1] It is almost a decade since the beginnings of HIV/AIDS responses in workplaces in South Africa. The long 'invisible' phase of the epidemic is now drawing to a close. South Africa is starting to experience the rising incidence of AIDS cases, reflecting the spread of HIV in the late 80s and early 90s. The country is soon to experience an accelerating appearance of people with AIDS-related illnesses, serious morbidity and a rising mortality. The AIDS epidemic will almost surely follow the advanced HIV epidemic, which has now reached a national prevalence of approximately 15-18% of sexually active adults in the 20-40 year age group - the age bracket on whom the economy and the workplace are most dependent.

South Africa - vulnerable to HIV

Epidemiological information on the AIDS epidemic is beginning to reveal some distinct patterns. It is true that HIV can affect anyone and, indeed, there is a whole spectrum of people with HIV infection spanning the wealthy and the poor; men, women and children across all race and ethnic groups; and affecting heterosexual and homosexual people. In South Africa the vast majority of infections are sexually acquired, and the epidemic clearly reflects the inequalities and disparities in society. Migrant labour, hostel life, the lack of empowerment of women, poor access to health care and information, substance and alcohol abuse, fatalism, violence and a highly mobile society all serve to fuel and propagate the epidemic. These forces, together with a rapid and uncontrolled urbanisation that has cast away hundreds of years of societal wisdom entrenched in cultural traditions, customs and mores, create a fertile environment for the spread of HIV in South Africa.

The implications are awesome: the potential impact and burden on the workplace could be more severe than any previous environmental, political or economic disaster.

Has the workplace response been adequate and appropriate and is it positioned to face the AIDS issue head on?

There have been a variety of responses to the epidemic, mainly by large- and medium-sized employers, by organised labour, by government, and by non-governmental and community-based organisations. This paper will address some key issues relating to these responses (or the lack thereof).

Have business and organised labour responded appropriately?

Business and organised labour do not seem to have responded with the appropriate enthusiasm and commitment demanded by an epidemic of this magnitude and nature. Many employers (especially large- and medium-sized) have responded but the responses are usually not sustained and generally inadequate. These responses have largely been left to junior staff in the human resource and healthcare areas and essentially neglected by top management, i.e. those with real power and influence to make a difference. Management often recognises the future problem, but only responds reactively when the problem starts pinching at the 'bottom line', at healthcare costs, at employee benefits, at productivity,

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at absenteeism, i.e. at the profits. The nature of the epidemic requires a more proactive response as it will be too late to prevent or minimise the burden once the impact is felt and so far the impact *has not yet* had significant impact in the majority of workplaces. Far more leadership, vision and direction are needed.

Organised labour, also appear to have failed to recognise the seriousness of this epidemic and the future devastation to its membership. The epidemic will undermine almost every social and economic gain that the union movement has fought to achieve over decades of struggle. Unfortunately, the labour movement has failed to translate any appreciation of the terrible potential impact of the epidemic on the lives of its members into effective prevention strategies. More often, it has been left to management to address the issue. However, the complexities and sensitivities of the issue necessitate employees themselves taking control in addressing the problem. Firm and decisive leadership and advocacy from the unions have been lacking. At head-office level policies have been developed but these are usually gathering dust as the epidemic relentlessly continues to spread. Very few meaningful efforts have been translated down the line. Labour has many other pressing issues but frequently neglects AIDS, or it allows petty politicking or squabbles with management to retard any real progress. Unless organised labour accelerates its commitment to AIDS it will almost surely be blamed for gross neglect of its responsibility when its membership faces the harsh reality of the epidemic's.

There is a critical need for a joint collaborative effort with all role-players and stakeholders and especially for management and labour to set aside their traditional barriers and view this as a collective problem in which both sides have a major vested interest.

AIDS policies

Many companies and unions have AIDS-related policies. These more often relate to what the company *will not do* than what *it will do.* It has been very encouraging and admirable to note that most company's policies state that they will not test existing and potential employees for HIV; that they will not dismiss unfairly on the basis of HIV infection alone; that they will not discriminate, etc. These are very positive policies but somewhat passive. Company policy needs to be much more forthcoming on what positive moves it will do and by whom and by when and how these will be monitored. AIDS policies need an *action* component translated into *a strategic action plan* as for any other plan around a threat to business and to the lives of employees. *Champions* are needed to propagate the action and these need to be the most accomplished, the most skilled and most creative in the workplace.

Addressing structural issues which promote the spread of HIV

There are many chronic structural issues which now demand a rapid appraisal and firm measures. Too many workers are still enslaved in social circumstances akin to the lives of the working class in the industrial revolution 150 years ago. Too many South African men and women are living and working too far away from their partners and their families. AIDS-related policies must address these issues urgently, as they are one of the most malignant fuellants of the spread of HIV. These responses also need to be addressed to sectors of the community outside the company fence: to local schools, sex workers, spaza shops, etc.

The need for real resources

Meaningful budgets must be found to respond to AIDS. The epidemic is a complex issue and is not solved by simple solutions. However, a single death of an employee in service, from AIDS, even at the lower income level, will cost in the region of R100000 (i.e. taking all productivity, healthcare and benefit costs into account) and often two or three times this figure. Yet many workplaces are not prepared to spend "real" money in addressing the issue. Saving the lives of a handful of employees will repay many times over the cost of a committed AIDS programme.

HIV risk analyses

In order to motivate employers and employees and to plan effectively, workplaces are recommended to do HIV risk analyses. This implies using all the HIV/AIDS epidemiological knowledge available; marrying this information to the particular workforce and sizing up the current and

future potential risk from AIDS. By quantifying the potential impact of AIDS both in terms of morbidity and mortality and associated costs it can have a profound effect in stimulating both employer and employee to take AIDS seriously and to develop commitment to address the issue properly.

Health care - HIV, STDs and TB

HIV

Caring for people with HIV/AIDS is becoming more and more sophisticated and expensive. State-of-the-art care for people with HIV is now advocating anti-retroviral therapy from very early on, even just after infection. Medication can cost R3500-R4000 per month, this needs to be ongoing and may be lifelong. Without this therapy, opportunistic infections will be more common, absenteeism more frequent, and the need for hospitalisation greater.

On the other hand, many HIV/AIDS-related conditions (in the absence of expensive anti-retroviral therapy) can be managed reasonably well and cost effectively at the primary care level, yet this is also a double-edged sword. If this care is not 'managed' it could become another financial 'bottomless pit'. The current privatisation of health care for employees, with all its potential abuse and misuse, may not effectively cope with the cost of AIDS.

It is therefore advisable to set up pragmatic managed care approaches and better still, if possible, to provide the primary care at the work site, from primary and occupational health care clinics.

These systems need to be put in place sooner rather than later, and staff need training in HIV care. Permits to allow primary care nurses to provide appropriate levels of care need to be forthcoming. The Health Department's moratorium on permits is serving to retard the development of this process and needs attention.

STDs

Prevention and care of common sexually transmitted diseases (STDs) is well recognised as a cost-effective way of reducing the vulnerability of the workforce to HIV and in limiting the spread of HIV. Many larger employers have still not moved to provide such care and often, when available, the care is not marketed adequately to their workforce. Clinics are not always sufficiently user-friendly to encourage the early seeking of health care for STDs and employees often prefer to pay higher prices in the private sector for STD care. Research has also shown that in the majority of workplaces the simple 'syndromic' approach to caring for STDs is not known or adhered to by the workplace clinic staff.[2] This form of care is akin to the ABC of health care yet, in many clinics, this simple therapy is not provided. Provision of care for STDs at the workplace is a priority issue.

TB

HIV-associated TB is soon to parallel the HIV epidemic. HIV raises many complex issues in caring for people with TB. Many healthcare workers are completely ignorant and unaware of these issues. Training and development of healthcare workers in managing HIV-related TB at the *work site* is another urgent priority.

Occupational HIV exposure

Occupational HIV exposure through needle stick injuries and via other sharp medical instruments is a real risk, even though the chance of a successful HIV transmission is very small. Are workplaces employing healthcare workers positioned to deal with such exposures? Are there policies and procedures in place in the event of such an accident? Is there a ready supply of anti-retroviral medication to provide immediate prophylaxis for an HIV exposure? Is there insurance cover for immediate post-exposure care, and for ongoing care, in the event of seroconversion? Is there life assurance cover in the event of a resultant death from AIDS? The answer in most companies to all of the above questions is usually no!

Occupational health and HIV

We know very little about the potential impact of various occupational health risks on an employee who is infected with HIV. How do occupational exposures to various industrial and mining dusts and other toxic substances such as heavy metals, excess heat, etc. affect the HIV/AIDS disease and how does immune deficiency affect the employee's vulnerability to these exposures?

Research is needed in this arena yet the strict confidentiality around HIV infection is making it difficult to do such studies and to

monitor workers in various occupational settings. Some common occupational sense and collaboration with unions and occupational health organisations are needed to gain the necessary cooperation of the workforce and to set in motion this essential research.

Confidentiality in the workplace

Fortunately South Africa now has a fair and just constitution and well-developed and established labour law which serve to protect employees from potential employer abuse and unfair practices. There is also an active human rights AIDS lobby watchful of illegal or unfair practice.

There is now a need to 'normalise' HIV/AIDS, to destigmatise the disease, to face up to it as any other illness. There are more than three million South Africans with HIV infection, enough people to suggest that this is a common disease in South Africa. Respect for privacy and confidentiality is non-negotiable, yet people with HIV need to be able to feel free to disclose their HIV infection and be received and dealt with in a normal manner.

A recent case study highlights the potential problem. A South African company in a high HIV-prevalent province experienced three deaths, in a two-week period, all of which were due to AIDS. The confidentiality issue prevented the hospital from disclosing to the company's occupational health nurse the cause of the deaths (even though she knew of the cases and had cared for them in her clinic); the hospital doctor would not write 'AIDS' or 'HIV disease' on the death certificate for fear of breaching patient confidentiality; and the company occupational health nurse (who knew that the cause of death was AIDS) could not divulge to the company management or to the workers' unions the cause of death. In turn, the company workers were suspicious (wrongly so) that there was an occupational hazard in the factory which caused the deaths yet this could not be adequately refuted.

The above scenario clearly demonstrates the potential problem and difficulty with the secrecy around an AIDS diagnosis

Unless management has integrity and avoids unfair discrimination towards people with HIV the above difficulties will continue, and present unnecessary conflict and tension in the workplace. New ways of dealing with these complex issues need to be debated and more acceptable solutions explored.

Confidentiality in the healthcare setting

Confidentiality in the healthcare setting is also proving to be problematic. It is almost impossible to maintain strict confidentiality about an individual's HIV status in a healthcare setting. A hospitalised patient may be cared for by three to six nurses over a 24-hour period; by one or more doctors; and by emergency staff, and their body fluids are often tested by its laboratory staff. Institutionalised confidentiality is required, but this demands that healthcare workers have integrity and do not divulge information about any patient to anyone except a healthcare worker in direct care of the patient. Secrecy around an HIV diagnosis is unhealthy as there are many different conditions which are associated with HIV, necessitating the need for the attending healthcare worker to know the HIV status of the patient (even if it is not the primary health problem).

Moving forward

Despite all the problems and difficulties, HIV/AIDS can become a unifying issue in a workplace. Responding to AIDS in the workplace is essentially about the workplace putting its 'house in order'.

There are many practical and essential strategies which need to be developed and acted upon. There are many unfair and unjust systems and situations which need to be corrected and repaired in order to minimise the spread of HIV and the impact on a workforce. There are numerous ways in which all role-players in a workplace can demonstrate their movement into the new South Africa by correctly and meaningfully responding to the demands raised by the HIV/AIDS issue.

Facing up to AIDS is also about honesty and sincerity and going the extra mile!

Precious time is rapidly running out ...

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1. *MMWR. Morbidity and mortality weekly report. US Department of Health and Human Services June5, 1981/vol30/No.21.*
2. *Dartnell E, Hlatshwayo Z, Schneider H. Evaluation of STD management in the private sector. Centre For Health Policy, University of the Witwatersrand.*

A FOOD GUIDE FOR SOUTH AFRICA

A food guide should be exactly that - a **guide**. It should translate the professional's scientific knowledge of food composition and nutritional requirements, into a practical plan for food selection by people with no training in nutrition.

Most nutrition educators in South Africa make use of systems developed for other countries, such as the Food Pyramid, used by the very first-world United States, and the three Food Groups, said to be successful for nutrition education in developing countries.

But using different systems creates confusion amongst people, especially when they have their own differences in food preferences, eating habits, lifestyles, nutritional requirements, types of food available, and budget constraints. And South African nutrition educators are now becoming concerned because such confusion does not improve nutritional knowledge or practices.

The time has never been so right for South Africa to develop its own Food Guide - one which is applicable to and adaptable for, the diverse South African eating habits and the South African food supply.

FOOD GUIDES, DIETARY GUIDELINES, FOOD GROUPS?

- Food guides give us an idea of **what** to eat and **how much** to eat.
- Dietary guidelines provide **basic nutritional advice** to promote healthy eating.
- Food groups place food into groups according to **type, function** performed in the body or **nutrient content** - to mention a few.

The problem with food groups is that:

- The staple food is not seen as being particularly important,
- Some foods that are not affordable, such as milk, are over emphasized, and
- Some commonly eaten foods, such as sugar, are not listed.

The USA have a good history of developing and adapting dietary guidelines. First released in 1980, these present simple, practical advice for choosing optimal eating habits. They reflect the most current scientific understanding of nutrition's role in health.

WHAT'S NEW ON SUGARS?

The guidelines on sugars is the most positive yet. Rather than being exhorted to "avoid too much sugar", consumers are advised to **"choose a diet moderate in sugars."** The guideline focuses on sugars' roles in the whole diet. This is because the body cannot distinguish between naturally occurring and added sugars. It is recognized that sugars contribute to the daily carbohydrate intake.

THE UNITED NATIONS APPROACH

In contrast to the USA, the Food and Agriculture Organization (FAO) of the United Nations initiative in the area of dietary guidance targeted at developing countries is based on four principles. The concept and messages are **positive, simple** and **direct**. It is an indication of a way of life that should keep a person well nourished and healthy. The FAO approach contributes to a better understanding of food and nutrition issues and facilitates the development of appropriate dietary guidance.

GET THE BEST FROM YOUR FOOD

Enjoy a variety of food	It's best to divide your daily food into more than one meal and always try to start your day with some breakfast.
Eat to meet your needs	Balance the amount you eat with the amount of energy you use.
Protect the quality and safety of your food	Don't keep food for too long; throw it away if it is spoiled or contaminated. Cook or cool perishable foods as soon as possible.
Keep active and stay fit	Stay fit and keep physically active to keep your body working properly, and to get the best from your food.

A LOCAL INITIATIVE

Initiated at a South African Sugar Association (SASA) sponsored workshop in 1995, the KwaZulu Natal branch of the Association for Dietetics in South Africa (ADSA) has taken on this challenge - to work towards developing a single food guide which is uniquely South African and which can be understood and implemented by all South Africans to meet their specific and diverse needs. The Nutrition Society of South Africa is investigating the development of South African Guidelines.

EVOLUTION OF THE DIETARY GUIDELINES FOR AMERICANS

1980	1985	1990	1995
Eat a variety of foods Maintain ideal weight	Eat a variety of foods Maintain desirable weight	Eat a variety of foods Maintain healthy weight	Eat a variety of foods Balance the food you eat with physical activity - maintain or improve your weight
Avoid too much fat, saturated fat & cholesterol	Avoid too much fat, saturated fat & cholesterol	Choose a diet low in fat, saturated fat, & cholesterol	Choose a diet low in fat, saturated fat, & cholesterol
Eat foods with adequate starch and fibre	Eat foods with adequate starch and fibre	Choose a diet with plenty of vegetables, fruits, & grain products	Choose a diet with plenty of grain products, vegetables & fruits
Avoid too much sugar	Avoid too much sugar	Use sugars only in moderation	Choose a diet moderate in sugars
Avoid too much sodium	Avoid too much sodium	Use salt & sodium only in moderation	Choose a diet moderate in salt & sodium
If you drink alcoholic beverages, do so in moderation	If you drink alcoholic beverages, do so in moderation	If you drink alcoholic beverages, do so in moderation	If you drink alcoholic beverages, do so in moderation

The guidelines are food-based, rather than nutrient-based to meet consumer's real needs. There is also an emphasis on the importance of maintaining a healthy weight throughout life; **"We want to erase the myth that an expanding waistline is inevitable"** (Shalala, Sugar Notes and News. Feb 96) The new, more positive focus on pleasurable food choices that promote good health is not an accident. There has been a deliberate focus on health promotion, rather than on disease prevention.

If you would like a copy of the FAO guidelines please write to: The Senior Dietitian, SASA, P.O. BOX 374, DURBAN, 4000.

Published in the interests of ongoing nutrition education by the South African Sugar Association, P.O. Box 374, Durban, 4000.

The DOTS programme

The article *The DOTS programme for tuberculosis-what's new?* (*Occupational Health Southern Africa* September/October 1997) demonstrated the important role that occupational health nurses are playing on providing directly observed treatment to TB patients. TB treatment is difficult to complete and patients need this kind of support. Receiving treatment at work is convenient for workers and makes it easier for patients to be able to take their treatment daily. The Department recognises this role and has initiated DOTS in the workplace guidelines and workshops to expand these services.

Observation of treatment is only one component of DOTS. DOTS as a strategy includes using a standardised effective drug combination to cure TB patients, using microscopy for diagnosis, recording and reporting so that health workers can trace defaulters and also to enable the programme to measure treatment outcomes of TB cases in the country.

In the past TB control efforts did not concentrate on identifying infectious TB patients and curing them to make sure that TB does not spread. Chest X-ray (CXR) was the primary method of diagnosing TB. Although a CXR is a good supportive measure of diagnosis it cannot identify infectious TB patients. Patients were being started on treatment and there was no recording system to monitor their progress or document their cure. Lastly not all patients were being directly observed while taking treatment to ensure treatment completion. For the first time these problems can be addressed if we apply all the components of the DOTS strategy.

The department realises that DOTS as a strategy cannot be carried or managed by the government alone. The process should be one of partnership with the private sector and all key decision makers in the country. The private sector has an important role in TB control and will continue to be a valuable resource in carrying out the DOTS strategy.

Ntombekhaya Matsha
Department of Health

Underground emergency care

With reference to the article "Underground emergency care in South Africa - a need for change?" by Phillip Oosthuizen, which appeared in the July/August 1997 edition, I would like to bring to your attention and that of the readers that, in most instances, the comments of Mr Oosthuizen are outdated and out of touch, especially his reference to "PROTO", which is my concern.

Mr Oosthuizen lists the hostile environments in which the Proto teams often have to operate and then states: "It is therefore obvious that Proto teams, because of their function, and due to the environment in which they function, should be capable of providing, for each other and casualties, medical assistance which is far more advanced and far more specific than the inadequate, inappropriate and often irrelevant general first aid that they have been taught."

I would like to point out that a first-aid certificate is merely a prerequisite of a Proto candidate, thereafter all brigadesmen are provided with further training in heat stroke identification and treatment; all aspects of CPR with practical training on the dummy; resuscitation using portable oxygen resuscitators to apply automatic artificial respiration and which can also be used as an inhalator and aspirator. These Resuscitators are always available at a Fresh Air Base.

Further to the above training, certain selected brigadesmen are trained in Mining Emergency Care - Life Support, which is a 3-week course, consisting of the following:

Basic Life Support

- Open an obstructed airway
- Implementing cardiopulmonary resuscitation
- Stop bleeding
- Treatment of shock
- Treatment of near drowning
- Treatment of hypothermia
- Treatment of emergencies due to excessive heat
- Treatment of burns caused by hazardous material in the mining situation

Advanced Life Support

- In- and extubation with oesophageal tracheal double lumen airway
- Intravenous infusion therapy commencement
- Implementation of Pneumatic anti-shock garment
- Blood pressure measurement

On successful completion of the course each brigadesmen is issued with a complete paramedic-type bag which they keep close at hand at all times in the course of their normal mine duty and on Proto operations.

Presently spread throughout the brigade there are 164 brigadesmen trained in Mine Medic Support. This course is in the process of receiving SAMDC approval. Many mines have also had other mining personnel trained in life support.

Mr Phillip Oosthuizen is of the opinion that there has been no change in underground emergency care in the last 20 years. I would suggest that Mr Oosthuizen should get his facts right before writing such articles and I extend an invitation to him to visit our Mines Rescue Services, to update himself on Proto, then write another article in the true professional expertise of our Mine Proto teams

RA Hooper
Managing Director
Mines Rescue Service (Pty) Ltd

Agency hits the international scene in less than a year

When Mike Bosman and Stefania Ianigro Johnson joined forces to build the best advertising agency in South Africa, neither of them suspected that it would happen with the first year of business. Bosman Johnson VVNB has recently merged with international ad agency, Lindsay Smithers FCB, South Africa's third largest advertising agency.

It all began in August 1996 when Mike Bosman, MD of Wilson Keller, set out to relaunch the Cape-based agency in terms of growth and image. He found the ideal business partner in Stefania Ianigro Johnson and together they formed Bosman Johnson VVNB. In less than a year, Bosman Johnson has made a name for itself as one of the South African advertising industry's most popular creative hotshops. During their first year, they have acquired an impressive list of blue-chip accounts and competed against South Africa's leading ad agencies, including Lindsay Smithers-FCB.

Lindsay Smithers, at 71 years in business, is South Africa's oldest advertising agency. When former CEO, John Sinclair passed away a year ago, Len van Zyl, advertising legend and previous Smithers CEO, was called out of retirement to find a successor to take over the reins and chose Mike Bosman.

The Cape Town operations of Bosman Johnson VVNB and LS-FCB have merged into one agency which will be trading as Bosman Johnson FCB with Mike Bosman as Executive Chairman and MD, and Stefania Ianigro Johnson as Group Creative Director. Len van Zyl will assume the role of non-executive Chairman of the holding company board.

Mike Bosman and Stefania Ianigro Johnson

This development means that Cape Town agency, Bosman Johnson FCB will rank No 2 in Cape Town with billings of around R160 million. The acquisition pushes LS-FCB as a group closer to the No 2 position nationally, with billings in excess of R500m.

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Almost 3 million South Africans are now HIV infected. Preventing the spread of HIV in a workforce is now a major corporate priority. Each case saved will save a company thousands of rands in direct and indirect costs. In addition, each case saved prevents another human tragedy.

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Currently condoms are available free from provincial authorities.

The unit can hold approximately 250 condoms with a compartment to house educational leaflets on AIDS prevention.

The dispensers are ideal for companies who want to prevent the spread of HIV/AIDS and other sexually transmitted diseases amongst its employees and want to be seen to be making a major effort to assist employees in keeping themselves free from HIV infection.

The dispensers have been successfully used in many companies in South Africa and are highly recommended as the spread of HIV is now at unprecedented levels.

For more information telephone (011) 786-6492.

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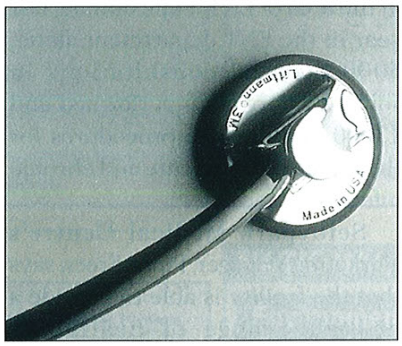

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Littmann stethoscopes have a reputation for quality and superior acoustic performance. If you have an acoustical performance problem, 3M recommends the following checklist:

Proper headset alignment

Littmann stethoscopes have headsets which have been designed to be worn at the anatomically correct angle. Improper wear can result in poor acoustical seal and, in some cases, complete sound blockage. The eartubes should point away from you before you place the eartips in your ears. Once the eartips are in your ears, they should be manually adjusted for custom fit, comfort and acoustic performance.

Proper eartip fit

Optimal acoustical performance can only be achieved with proper sized eartips especially when using the softsealing type. The compression of the softsealing eartip in the ear can result in poor acoustical performance. The same applies for eartips that are too small, so finding the correct eartip size is important.

"Indexed" chestpiece

When using a double-sided stethoscope, the user needs to open or "index" the bell or diaphragm by rotating the chestpiece. If the diaphragm is open, the bell will be closed, preventing sound from coming in through the bell and vice versa.

For further information, please contact Adeline Sokolich, tel: (011) 922-2076.

New name for Rand Mutual Hospital

One of Johannesburg's medical landmarks, the Rand Mutual Hospital, situated on Eloff Street Extension, is entering a new era with a new name, the Selbypark Medical Centre - and is poised to become one of the CBD's flagship private multidisciplinary hospitals.

Over the decades that the Rand Mutual Hospital operated it became well-known as a healthcare provider to the mining industry and developed a reputation as one of the best rehabilitation facilities in the country. For example, it earned academic satellite status for the Neurosurgury Unit from the Medical and Dental Council for its work in this speciality.

Now, the Selbypark Medical Centre is a specialised referral facility, which will specialise in the treatment of trauma, disease and disorders. It offers the strengths, expertise and adherence to international standards - features built up over decades - to the general public, the commercial/industrial sectors and the mining industry. Offering an affordable and comprehensive service across a full range of disciplines, Selbypark Medical Centre also aims to become a leader in the use of modern technology in medicine.

Already Selbypark Medical Centre has advanced plans to extend its world-class specialist facilities to rural areas via telemedicine. An area where telemedicine would improve rural medical procedures would be in the area of ENT. For example, last year in the ENT department alone, 5000 medical consultations in Johannesburg were performed and 13000 audiometric procedures for the eradication of acute and chronic infection.

Selbypark Medical Centre's Marketing Manager, Pippa Freer, says that the facility is able to provide a powerful range of healthcare solutions due to its unique situation of being both well-established and a modern, privately owned medical facility, which is presently upgrading and expanding facilities. Says Freer, "We are a well-established and privately owned medical facility with considerable potential to service the city and surrounding areas through our ability to provide a valuable one-stop medical service.

"We are a multidisciplinary private hospital which specialises in the treatment of trauma, disease and disorders. Our service includes a 24-hour emergency service and a provision of a helicopter-pad/air lift facility."

Selbypark Medical Centre's history, stretching back to the earliest mining days of Johannesburg, reflects that this facility has always kept abreast with social and medical progress throughout South Africa's history, and in its rebirth Selbypark aims to maintain this dynamic and constructive approach to South African's health care needs. For instance, Wenela Hospital - the forerunner to Rand Mutual Hospital - was the first training centre for black nurses in the country.

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To have your entry included call Pru Baker at Cannon Medical Media (Pty) Ltd.
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Here is your first lesson in pain relief

There is no second lesson

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