

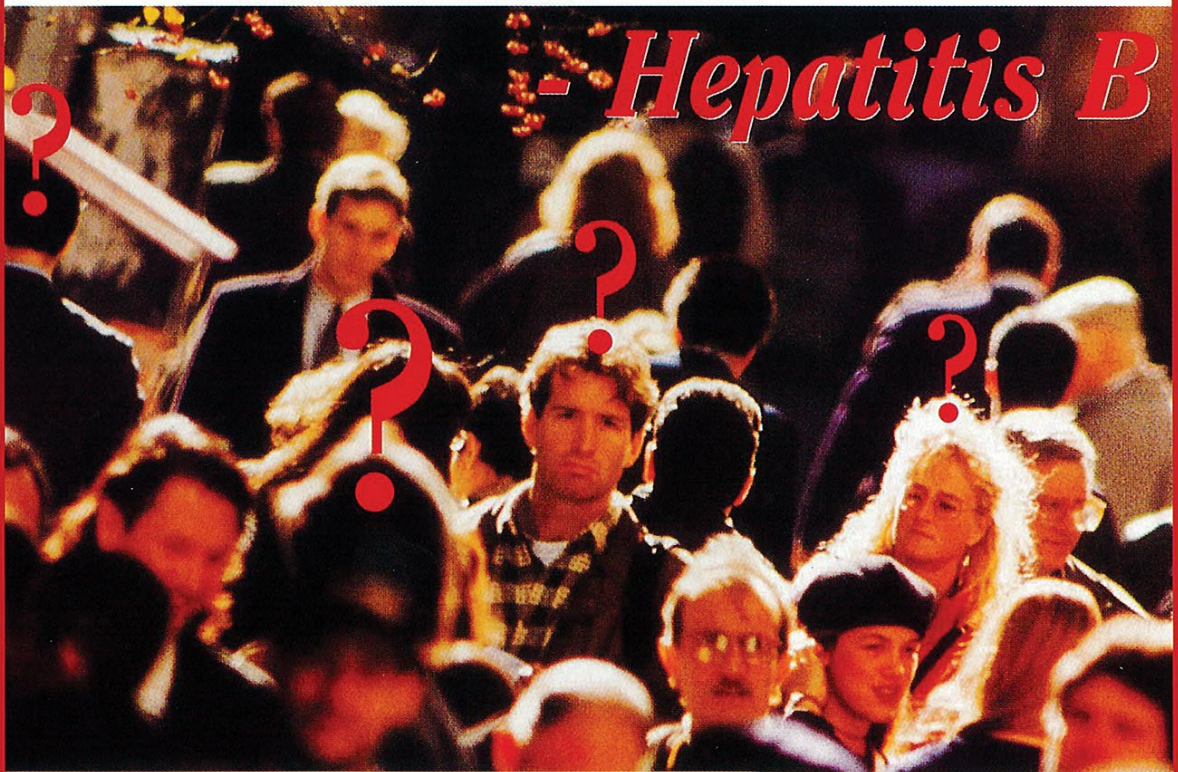
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Vol 6 No 3 May/June 2000

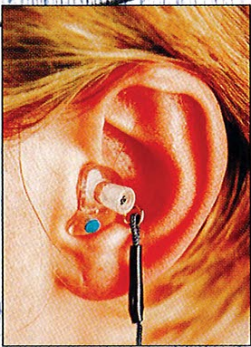
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May/June 2000
Volume 6 No 3

This journal focuses on Occupational Health, Medicine, Hygiene and Safety, Primary Health Care at the work place, Environmental Health and other employee health benefits

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Occupational HEALTH

SOUTHERN AFRICA

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Occupational Hygiene forges ahead

It has been announced that the Occupational Hygiene Association of Southern Africa (OHASA) and the Institute of Occupational Hygienists of Southern Africa (IOHSA) have merged to form the Southern African Institute for Occupational Hygiene (SAIOH). The societies are congratulated on this important initiative and I am sure this new body will serve the interests of all occupational hygienists in Southern Africa, as well as improving the safety, health and environmental endeavour in this region. Doctor David Stanton is the president of this new association and we wish him and the various committees of SAIOH "voorspoed" for the tasks that lie ahead. He has been very active in the past in promoting occupational hygiene as well as all the societies in occupational health and safety. He is also well versed with the internet and is the webmaster of asosh.org.

Outsourcing, the solution or not

Outsourcing is currently a buzzword similar to several others such as downsizing, rightsizing, non-core and so on. The occupational health service is regarded as a non-core specialist area similar to catering, security, information technology and others and there is a growing trend to outsource this function. As a result two medical officers and two occupational health nurses have given us their opinions on this. It is not a simple issue and what may be successful for one company may be disastrous for another. Everything tends to be cyclical and what may be appropriate at present is certain to change in the future.

I urge you to read these articles, come to your own conclusion and join the debate in the correspondence columns.

Worker compensation and AIDS

In all the AIDS impact studies, opinions in scientific journals and reports in the lay press, little has been mentioned about the potential increases in costs to the worker compensation systems in this country. The Rand Mutual Association commissioned a study which has added to the body of knowledge on the financial impact of this epidemic. It has shown that costs as a result of AIDS will increase very substantially depending on which scenario is used. The message is clear that it is far better to prevent accidents and thus the attendant suffering and costs.

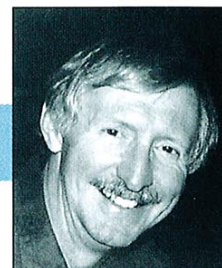
Women's health

There are two review articles on the health of women which are timely. Slavik looks at the two common cancers in women in South Africa, namely breast and cervical cancer. It is obvious that a great deal can be done to prevent them. Nelson has reviewed hormone replacement therapy (HRT) and current knowledge shows that the use of HRT outweighs its potential side-effects. Those occupational health services which look after a significant proportion of women should take careful note of these articles and see if they can effect any improvement to the health of their female employees.

Legal Page

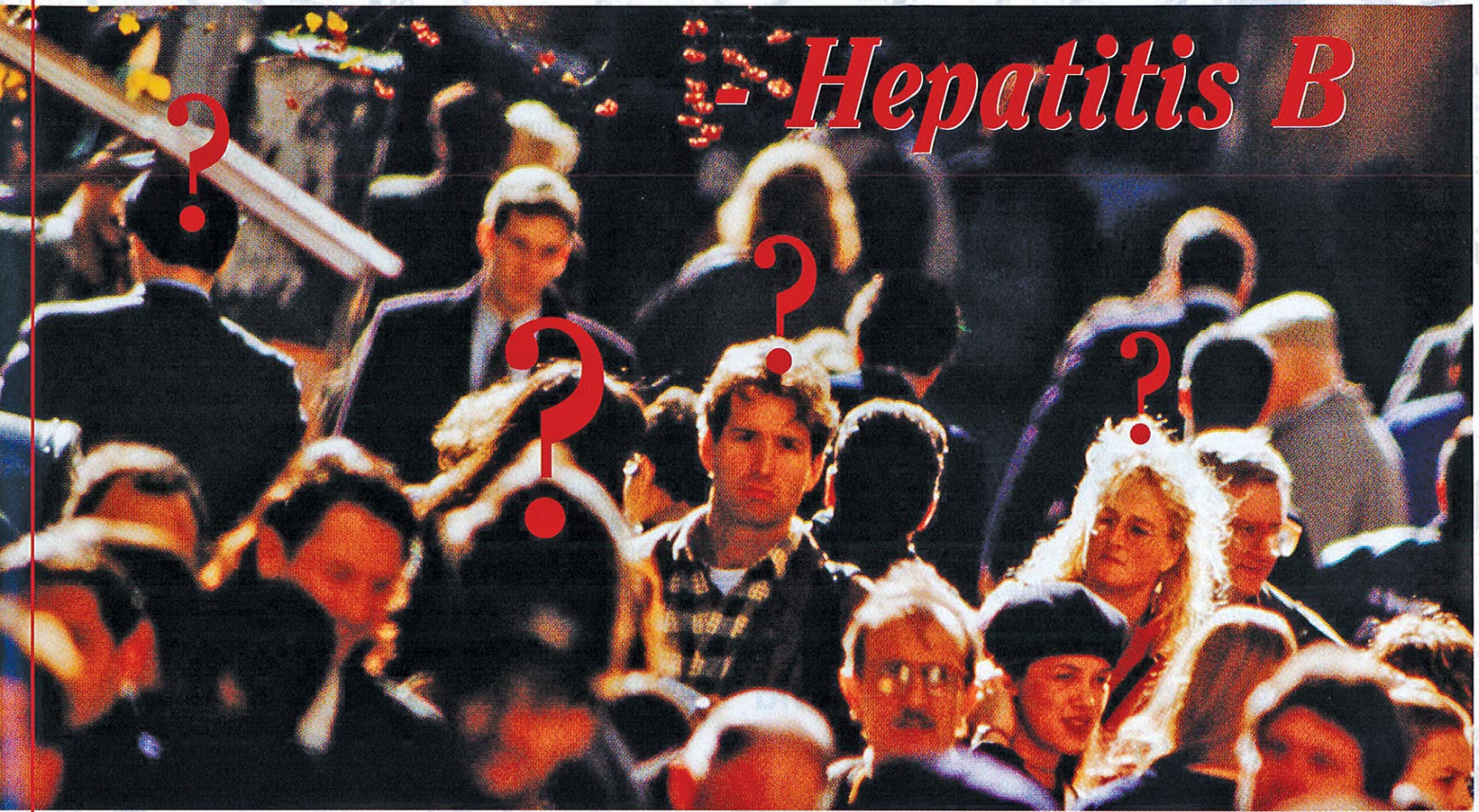
Legal Page is a new feature written by Dr Stanton which will keep readers updated on new legislation. This will become a regular feature and will be a useful reference for those working in the fields of safety, health and the environment.

Mike Baker
HONORARY EDITOR



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References: 1. Data on file at SmithKline Beecham, South Africa. 2. Engerix-B Questions and Answers. SmithKline Biologicals, Belgium. 3. Clinical Monograph. Prevention of Viral Hepatitis in Children and Adolescents. Global perspectives. 4. Van Damme P, Thoelen S and Meheus A. Persistence of Hepatitis B Antibodies 7 Years after Booster Administration. IX Triennial International Symposium on Viral Hepatitis and Liver Disease. 21-25 April, 1996 Rome, Italy. 5. Boland GJ, de Gast GC, et al. Long-term Immunity to Hepatitis B Infection after Vaccination with Recombinant Hepatitis B Vaccine. *Hepatology* 1995, 22(9) 32S. [S2] ENGERIX-B Paediatric. Each 0.5 ml contains 10 µg r-DNA purified surface antigen protein adsorbed on 0.25 mg Al as aluminium hydroxide. Reg. No. W/30.1/35. [S2] ENGERIX-B. Each 1 ml contains 20 µg r-DNA purified surface antigen protein adsorbed on 0.5 mg Al as aluminium hydroxide. Reg. No. U/30.1/186. Refer to package insert for full prescribing information. Further information is available on request from SmithKline Beecham Pharmaceuticals (Pty) Ltd, Inyanga Close, Sunninghill Ext 81, Private Bag X13, Sunninghill, 2157. Tel: (011) 239-4500.

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Important Announcement from the President



Dr David W. Stanton

**The Southern African Institute for
Occupational Hygiene**

Occupational Health SA 2000; Vol 6, No 3: 4 - 5

One Society, One Name and One Logo

After a long process I am pleased to announce that we now have one occupational hygiene society with an independent certification board. The new society, The Southern African Institute for Occupational Hygiene (SAIOH), is an amalgamation of the Occupational Hygiene Association of Southern Africa (OHASA) formed in 1983 and the Institute of Occupational Hygienists of Southern Africa (IOHSA) formed in 1993.

The new name, chosen from twenty-one suggestions, was unanimously agreed at a special OHASA (Incorporating IOHSA) Council meeting in March 2000. It was also agreed that the logo to be utilised would be based on the IOHSA logo. The key objectives for the Institute have been developed and a firm plan of action for 2000 and 2001 will be developed at a special workshop for all SAIOH members in June 2000.

The Past Year

While we were heavily engaged in discussions to amalgamate OHASA and IOHSA in 1998/99, a number of additional events also took place. For example, in 1999 we organised a Conference with the International Occupational Hygiene Association (IOHA), where we had the opportunity to listen to occupational hygiene experts from around the world and strengthen our relationships with IOHA and overseas societies.

At the same time experts from the Canadian Centre for Occupational Health and Safety (CCOHS) and the Health and Safety Executive (HSE), UK presented professional development sessions on "Accessing Health and Safety Information on the Internet" and "A Simplified Approach to Risk Assessment".

Through IOHSA, the examination procedure was further developed and in 1999 the Department of Labour mandated that registration as an Approved Inspection Authority required an IOHSA qualification. A mechanism was established to enable members to publish guidance documents such as the IOHSA Risk Assessment Manual. In 1999 a document on Air Monitoring Strategies was developed by IOHSA and approved by the Department of Labour. This document with a foreword by the Chief Inspector, will be available shortly through SAIOH. We would encourage members to share their expertise and publish more such documents through SAIOH.

In recent months extensive links to occupational hygiene information have been added to the website, <http://www.asosh.org>. You now have fast access to more free occupational hygiene information than could have possibly been imagined only a few years ago. The e-mail discussion group, OHASAnet (now occhyg or SAIOHnet) formed in 1999 is starting to become very useful with questions often being answered on the same day. I would encourage all members to subscribe to SAIOHnet (occhyg@egroups.com). To subscribe simply send an e-mail to: occhyg-subscribe@egroups.com.

I would particularly like to encourage all members to submit articles or information for the Institute newsletter, web site, e-mail discussion group and to our official journal, Occupational Health Southern Africa. A listing of all the published journal articles can now be accessed by title, author or volume at the Cannon Medical Media website. The link to this information is provided on the SAIOH page at ASOSH.ORG and at SAIOHnet. With our journal, newsletter, e-mail discussion group and website we have excellent communication and information resources.

International Affairs

On the International front Rob Ferrie, Chairman of the SAIOH Certification Board, is the Institute's representative on the IOHA Board. He will be attending the next Board meeting in Cairns Australia in July 2000.

A key item on his agenda will be to convince IOHA to hold their International Conference in South Africa with SAIOH in 2004. The IOHA Board Meeting is being held in conjunction with the IOHA fourth International Scientific Conference which has the theme "Occupational Hygiene in Developing Countries".

SAIOH will be well represented by Rob and a number of other Southern African delegates.

I am now a member of the ACGIH International Committee. In Orlando, Florida, during May 2000 I will be proposing to the ACGIH and the AIHA the formation of a coordinated body of knowledge on occupational hygiene via the WWW with inputs from around the world.

The Way Forward

On the home front I intend to work with Council to develop a series of workshops on topical issues and to establish local chapters of the Institute to further develop occupational hygiene around the country.

Awards will again be available for personality of the year, student of the year, best journal article and, I will introduce a new award for best student or novice journal article.

It is my intention to put the Institute on a firm financial footing. Unfortunately a number of OHASA members did not pay their membership fees in 1999 yet continued to receive member benefits, including the journal and the newsletter.

Those members in arrears for 1999 and 2000 who did not pay their fees by 30th April 2000 now have their Institute membership cancelled. The journal and newsletter will now only be sent to paid-up members.

Finally, a special thanks to all the OHASA and IOHSA members. Over the years major developments in occupational hygiene have taken place in this country because of your efforts. I look forward to your continued support. Our Institute is only as strong as the input from our members. Let us now work together to further develop the discipline of occupational hygiene in South and Southern Africa through SAIOH.

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*our new site puts safety first - online

Open your mind to the three most important factors affecting industry today: Safety, Health and Environment (SHE). Now open the site that covers every aspect of SHE: www.SHEafrica.com. There you'll find up-to-date, mission critical information on subjects such as water and waste management, pollution and occupational hygiene, as well as the latest legislative, regulatory and industrial standards - here and abroad. Browse through our Buyers' Guide, peruse the Product Showcase, even request Quotations or Proposals. If you're in the Safety, Health and Environment industries, or involved with any of them in some way, visit the site that sweeps up. www.SHEafrica.com

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metropolis

World Aids Day 1999

"Let us join hands in partnership against HIV/AIDS, fully aware that our unity is our strength. Let us pledge that wherever we meet and study, wherever we work and sing, play or enjoy one another's company, that we will protect ourselves and our partners against HIV/AIDS." President Thabo Mbeki

The implications of sick leave for HIV positive employees is already starting to hit South African business as figures rise to 1700 new HIV infections every day. The only sure thing about AIDS in SA is that the worst is yet to come. The average age of those infected is 41,5 years.

As a company, Unilever realised many years ago that time is of the essence with such a quick-spreading disease. In order to face the challenge of being effective against AIDS the company needed to be passionate in its fight against the disease. They needed to listen, learn and live AIDS. To manage this effectively, behaviour changes had to be instituted, an atmosphere of trust, goodwill and compassion had to be nurtured and its mission has been to fill its employees with the knowledge that AIDS is about living, not dying.

Part of the awareness and educational campaign has been to recognise World Aids day each year and to spread awareness to all surrounding companies, as corporate activists in the ongoing struggle.

The theme in 1999 was "Youth - a force for change". Many caring organisations were invited to join in as exhibitors for the day, including Cotlands Home, Bethesda House (the Salvation Army refuge for AIDS babies), St Francis House, Mahau Centre Kalafong, and others. Father Barry Hughes-Gibbs was the inspiring guest speaker, encouraging everyone not to give up the fight.

Choirs from Watville lead in hymns and prayers through the day. Unilever's own talented 4 tenors sang a moving AIDS prayer. Candles were lit in memory of those who have died and red ribbons pinned to the AIDS Xmas tree to encourage those still struggling, to come to terms with the devastating effects of the disease.

Visitors were encouraged to write names on a large sheet in memory of lost loved ones. Hands were clasped and many tears were shed. A short, moving ceremony took place when the memorial plaque for Eustacia Msibi, Unilever's former loyal peer group educator, was unveiled.

Over 1000 people took part in the proceedings - including neighbouring company staff, and medical staff who are in contact with Unilever's workers.

Each employee was presented with a beaded AIDS badge as a personal commitment in the fight. This is meant to be a symbol of empathy for all patients and their families.



World Aids Day celebrations at Unilever.

Apology:

We apologise for the printing error in our previous edition, quoting the above company as Corobrik and not Unilever. Our apologies for any inconvenience it may have caused.

SASOM Launch

A cocktail function was held on 16 February 2000 at the Irene Country Club during which the "Medical and Environmental" guideline was launched. This is a joint venture project between the SASOM Scientific committee on Biological Monitoring (SSCBM) and the Council of Scientific and Industrial Research (CSIR). It is now available in a binded hard copy format and the SASOM National Office can be contacted for more information at Tel: (012) 667-5160 or e-mail: sasomdm@iafrica.com

Copies of this document were presented by Dr W.M. Coombs to Ms. Riette Oosthuizen of the CSIR, Willie van Niekerk of Infotox, Dr. Hans Botha of Naschem, Dr. Hans van der Merwe of Polfin, Mr. G. Sekobe of the Department of Health, Ms. Faiza Salie of the Department of Labour and representatives of COSATU and CAIA.



Copies were also presented to the following people: Back from left to right are Prof. Daan Kocks (Chairman-SASOM), Dr. Murray Coombs, (Vice - chairman - SASOM and Chairman of Scientific Committee), Dr. Eugene Fourie (Du Buissons), Prof. Dave Rees (NCOH).

In front from left to right are Dr. Loyiso Mpuntsha (SAMA Accreditation Department), Mr Pat Manders (CSIR), Sr. Louwna Pretorius (President - SASOHN)

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New

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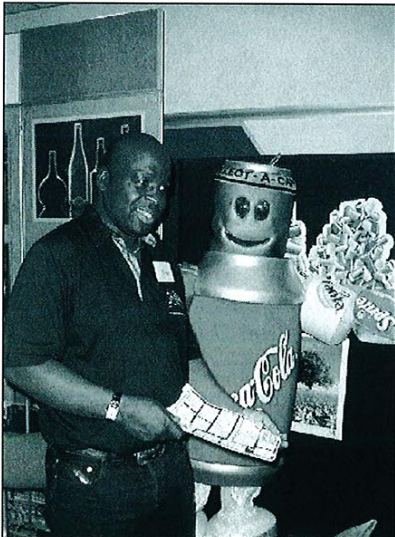
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The Extra Mile

In Search of Excellence

Is this merely a dream or could it be a reality? For



Collect a Can

OH nurses contemplating the future as well as the constant difficulty in getting the health message heard in a busy work environment, the answer lies in the fact that one can only achieve as much as one is prepared to put in.

We are entering a new era of opportunities for

the future. Nurses need to have the vision to run with new ideas and take the opportunities when they arise.

The Unilever Site in Boksburg came alive with activity at the end of November 1999, with the official opening of the Safety, Health and Environmental Expo "We Care" by the Mayor of Boksburg, Eric Xayiye. The objective of the Expo was to create off-the-job safety, health and environmental awareness with the focal point being health.

1200 delegates visited the expo - an impressive figure by any standards and one which underlines the amount of support the project was given by senior management within the organisation.

The standard of professionalism and subject knowledge of exhibitors were exceptional and was of immense value in raising community awareness in the safety, health and environmental fields.

Queuing up for routine blood pressure and cholesterol tests became fun and discussions and comparisons were ongoing.

Health promotion needs to be as visual as possible and should in fact use all the senses, physiotherapy, dental hygiene, optometry, audiometry, podiatry, diabetic and hypertensive screening was offered by highly qualified professionals. One of the health promotion strategies was aimed at improving nutrition with two dieticians on hand to discuss all aspects of sensible diet strategies with exercise.

All exhibitors made every effort to transform the exhibition hall into an interesting and informative area. Glass recycling, Collect a Can, Plastics Federation South Africa, Leading Edge Sports Centre, Community Policing Forum and Horizon Clinic focussed as part of this team.

Over and above the exhibition hall, live demonstrations were performed repeatedly during the two days. The Boksburg Emergency Services used the "Jaws of Life" to extricate a dummy trapped in a simulated motor vehicle accident.

The Boksburg Law Enforcement K-Nine unit was on hand with their dogs who gave a professional and well-disciplined dog show. In addition the team simulated a hijacking, which was frighteningly realistic, demonstrating how easily a hijacking could take place. Helpful precautions were discussed thereafter.

Teamwork became a reality and all participants were able to perceive that prevention is the key to managing employee ill health, as well as the fact that the OH team has a vital role to play.

Are you prepared to travel the extra mile - to be proactive and to open up opportunities? OR

Do you think someone else should do it for you??

Sister Gillian Harrower, Unilever



Boksburg Emergency Services

SHE2001

All aspects of occupational health and safety, environmental protection and fire and emergency services will be exhibited under one roof for the first time in 2001.

South Africa's premier occupational health and safety exhibition – SHE 2001 – will join forces with the Fire and Emergency Medical Services exhibition. The two will be run in tandem from 16 to 18 May 2001 at the MTN Sundome, Johannesburg.

“For visitors the natural synergy between the two shows means added value as they are exposed to the full spectrum of innovative products and services relating to all aspects of these fields,” says Melanie Froneman, exhibition director.

Each exhibition will have its own industry-specific conference running alongside it.

The Association of Societies for Occupational Safety and Health (ASOSH) will be hosting an interactive conference which will tackle topical issues head-on while the Fire and Emergency services conference will focus on latest trends and technologies in their field.

**More information can be obtained from SA RAI at (011) 794-5511
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Dr Clive Evian
MBBCh, M Med (Community Health)



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To the Editor,

In a recent article of the Journal of the Royal Society of Medicine it was intriguing to note the do's and don'ts of examining the respiratory system, subsequent to a survey of British Thoracic Society members.

What was of concern is that 403 members of British Thoracic Society who were asked how they teach both undergraduate and post-graduate students to examine the respiratory system and also whether there were any parts of the clinical examination which in their opinion would be adversely affected if their preferred method was not used.

A 68% response was received and the pertinent contents concluded:

1. That the respiratory rate should not really be measured (unless in selected cases, and this under the pretence of taking a pulse so as not to make the patient too self-conscious).
2. That the trachea should be examined from the front with either one or two fingers.
3. That chest expansion be assessed by inspection, and if palpating for chest expansion, the hand should be placed horizontally and the thumbs can be either on or off the chest wall. Only on rare occasions should a tape measure be used (e.g. Ankylosing Spondylitis).
4. That elicitation of Tactile Vocal Fremitus (TVF) upset the examiners, with a great variety of opinion and the suggestion is that this no longer be considered a routine part of the respiratory assessment.

5. That percussion over the clavicle should be performed routinely. However, this could be painful for the patient unless a finger is used to cushion the blow. Comparison of one side of the chest to the other is important, followed immediately with three sites anteriorly, and two laterally and three posteriorly. The apex beat and cardiac dullness should be mapped out only in selected cases.

6. Auscultation should normally be with the stethoscope diaphragm, although the bell may be used for hairy chests. Three sites should be auscultated anteriorly, two laterally and three posteriorly.

7. Vocal resonance should be used as an alternative to TVF in selected cases, but is of limited interest only.

The suggestion is that the above scheme would be a reasonable and practical assessment of the respiratory system and this may be of interest to your readers.

Finally, the assessment of the respiratory system in occupational health is of paramount importance, not to mention other appropriate investigations, including pulmonary function screening, chest x-rays and complementary screening procedures (allergenicity etc.).

Yours sincerely

Dr Chris Van Selm

Wood & Van Selm Occupational Health

Westville Hospital, P O Box 304 Pavillion, 3611

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Acute Infectious DIARRHOEAS

Acute infectious diarrhoea is a common occurrence in areas where sanitation is poor. A good example is the threat of a cholera outbreak that followed the recent flooding in Mozambique. Cholera and bacillary dysentery, as discussed below, are two common examples of highly infectious diarrhoea.

Cholera

Cholera may present in a variety of case scenarios, ranging from asymptomatic to mild, self-limiting diarrhoea or as the full-blown syndrome.

Disease: Typical symptoms are vomiting and massive diarrhoea. The typical stool is described as rice water (white fluid flecked with mucus). The incubation period is from 1 to 3 days. Mild cases are common and this leads to carrier cases.

Complications: Diarrhoea is copious with the loss of up to one litre of fluid an hour, this rapid fluid loss leads to dehydration, hypovolaemic shock, metabolic acidosis and death.

Source and transmission: Transmission is via the faecal-oral route and faecal matter contains massive amounts of the cholera organism. In areas of poor sanitation the organism can find its way into the public water supply and at this stage crops may be affected.

Control: Cholera is a notifiable disease and early detection is the best control measure. The only sure method of protection against cholera is adequate clean water supply and good sanitation. The most important control methods are effective sewage disposal, eating thoroughly cooked foods, boiling drinking water and washing hands scrupulously.

Dysentery

Patients present with symptoms of lower abdominal cramps, frequent passage of small volume, bloody, mucoid stools and fever. The above are caused by the dysenteric type of Shigella.

Disease: The infectious dose of Shigella is low, with as few as 10 to 100 organisms causing disease. The incubation period is 1 to 4 days. In adults the disease is normally self-limiting.

Complications: Sepsis, seizures, renal failure and haemolytic uraemic syndrome. Approximately 5 to 15 % of untreated cases are fatal. The highest fatalities are amongst those members of the population that are compromised, being children, the elderly and the malnourished.

Source and transmission: Man is the main reservoir of the Shigella species. Excreted material is the source of most infections. Infection is via the faecal-oral route or direct spread from contaminated food. Insects may rarely transmit the disease, and flies serve as mechanical vectors.

Control: Antibiotics are a method used to treat the disease. The complications of the disease need to be remembered and avoided by paying attention to the patient's hydration status and the correct usage of the antibiotics. Prevention is through practising good sanitation, including scrupulous hand washing, wearing gloves when dealing with diarrhoeal stools, environmental cleanliness, drinking boiled or treated water and cooking food thoroughly, correct disposal of contaminated waste and autoclaving of soiled linen.



Infectious diarrhoea is potentially lethal and yet, with paying attention to simple hygiene methods, such as hand washing with Dettol Liquid Handwash, person-to-person transmission can be prevented.

From a nursing practitioner's perspective:

Outsourcing

Sr Penny Orton

Occupational Health Nursing Practitioner in private practice

Occupational Health SA 2000; Vol 6, No 3: 12 - 13

Introduction

The decision whether or not to outsource an occupational health service is a dilemma facing many companies at the moment. Business is getting leaner and meaner while trying to compete in an increasingly competitive world and outsourcing of non-core business is one of the strategies often adopted. However, the decision to outsource should be carefully considered as it may not always be to the benefit of the company. For the purpose of this debate, outsourcing is defined as the contracting out of the service to a professional, independent occupational health company as opposed to employing an individual.

Reasons for outsourcing

Reasons commonly cited for outsourcing include costs, less hassles, staff problems or the euphemism "non-core". When confronted with "non-core", decision makers talk about non-essential, not directly involved in the business, not contributing directly to the bottom line, finance and so on! I would argue whether occupational health, in this age of legislation and litigation, is "non-core!"

Costs

Unless the in-house occupational health service is a large "fat cat" service I would dispute the fact that outsourcing contributes to cost savings, the opposite is true - outsourcing is more expensive. An in-house occupational health service can be provided more cost effectively than an outsourced service - in-house no profit is made and outsourced there is! A personal example I can quote was for a small distribution depot that required the services of a part-time occupational health nursing practitioner for 12 hours a week - in-house cost R4000 per month and the quotes for outsourcing were R7000 per month and R10 500 per month respectively. Outsourcing is not cheaper!

The hidden costs associated with an occupational health centre, for example, administration of salaries, do not significantly impact on the overall costs as the

organisation would have that infrastructure in place anyway and so processing one or two more employees would not adversely affect the bottom line.

Staff Problems

Staff problems are often cited as a reason for outsourcing. Outsourcing will not resolve these. With the myriad of labour legislation in force employees cannot simply be hired and fired at a whim and these employees need to be managed correctly. Outsourcing could contribute to staff problems because the company does not have any jurisdiction over who fills the occupational health practitioner's position and therefore he or she may not satisfy the corporate culture, may not be a good match for the management style and so on. A large part of the success of an occupational health service hinges on the personality of the incumbent running the service. The contracted occupational health practitioner does not always integrate well and remains an outsider. He or she may feel alienated and therefore ideals of loyalty, dedication and focus are lost. The occupational health practitioner may find him or herself in a difficult position of meeting the needs of her employer, the company to which he or she is contracted and good occupational health standards and practice. The outsourcing company does, in certain instances, change the occupational health practitioner frequently which does not allow for a relationship to be established with the occupational health service; and again the service is not as effective as it could be.

"Less Hassles"

The company can outsource the occupational health service but management within that company remains legally responsible and accountable for health and safety within the organisation. This can lead to a conflict of interests and serious legal issues. The hassle of managing this area of non-core business is not dispensed with, as company management must take an active part in ensuring that all legal requirements are met and adhered to. You might argue that a professional occupational health service organisation is ideally positioned to deliver these needs, however, company management has to keep abreast in order to ensure compliance!

Having a competent, in-house team of occupational health medical practitioner and an occupational health nursing practitioner will ensure, just as effectively that these requirements are met.

I would argue that, even for a very small company, the benefits of employing a part time occupational health nursing practitioner outweigh the benefits of outsourcing.

Conclusion

When outsourcing the occupational health service, cognisance must be taken of the reasons why! Outsourcing the occupational health service is not less expensive, less hassle or less litigious. The success of any occupational health service is dependent on the quality and competence of the service given, on the personalities of those delivering the service and on continuity. I do not believe that any of these criteria can be more effectively delivered by outsourcing!

ACKNOWLEDGEMENTS

To Dr Duncan Mc Aulay, Occupational Medicine Practitioner, SA Breweries, Chamdor Region and Mr Trevor Wilson, Risk Control Manager, SA Breweries Ltd for their discussion which helped formulate some argument for this debate.



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PIONEERING BUSINESS OPPORTUNITIES IN AFRICA

Outsourced services:

Examining the Advantages

Dee Boorman

Occuhealth, Johannesburg

Occupational Health SA 2000; Vol 6, No 3: 14 - 15

Introduction

This is an often-debated problem; and hopefully these articles will provide not only food for thought but initiate debate on the merits of both systems. Some professionals feel that all occupational health and safety programmes and facilities need to have someone in-house and always available during working hours, while others feel that an outsourced, part-time service offers the same benefits to all involved. More and more companies appear to opt for the latter system, while maintaining control of quality of work output. There are a few criteria which need to be looked at when faced with this dilemma; hopefully I shall highlight them and create some debate around these points.

Employee

Whether the facility be in-house or outsourced, I feel that the type of employee who fills this role is of importance. What is needed is a highly qualified professional, (not only academically) who has not only in-depth knowledge of their subject matter, but also all relevant legislation pertaining to the subject. The occupational health practitioner (OHP) must understand the company culture, but also have an in-depth knowledge of the methods of production of the company, in order to assist in drawing up a pro-active programme of hazard control. She should be flexible in approach to both her work and the employees, and network well with other professionals in fields that may impact on the workplace.

The current trend is for more companies in South Africa to be steering themselves into outsourcing the health service. With the current economic down turn, more and more companies are using terminology such as downsizing, and outsourcing areas that are not considered core business issues. The occupational health service fits into this bracket very readily.

While many people think that the primary reasons for outsourcing is one of cost, this is not true and will not give a true reflection of what is needed.

There are more components to outsourcing than meets the eye, some of them being the adaptability of the service, the type of service to be rendered, the internal reporting structure of the service and the costs.¹

Adaptability

An outsourced health service should be considered by looking at the on-site hazards, number of employees, number of employees who will be exposed to hazards in the work place, shift work etc. The environmental survey will allow one to make an informed decision on some of these factors.² Tailoring the service to the size of the workforces, hazards etc. allows for a more cost-effective service, remembering at all times to ensure legal compliance with current legislation.³ The service may also be broken down into smaller components for the client, such as the amount of time spent on primary health care versus occupational health care. In some cases having an afternoons-only clinic meets the same needs as having either a morning or full-day service, allowing employees from different shifts to have access to the health service, once they have woken up in the latter part of the day. A flexi-time health facility can improve productivity immensely, being tailored to fit the needs of all concerned: the practitioner and the employees, allowing a couple of hours during different parts of the day.

Type of service

Primary health care vs occupational health care

Some clients prefer the needs of their employees to be met by either one of these services and not necessarily both. Once again, the time factor needs to be taken into account. Is it necessary for absenteeism to be part of the health care function or can this be better monitored in-house in the human resources department. Counseling can take up a lot of time when rendering a health care service. One aspect is to further outsource this area to other professionals. Tailoring the type of service as an outsourced care facility allows one to control the cost effectiveness of the service.

Chronic disease control, i.e. hypertension, epilepsy, may also be confined to a specific time within the service or may be outsourced to another professional, like the local GP, depending on locality of his services.

Internal reporting structure

When considering outsourcing, a strong link needs to be maintained with the on-site employee who is coordinating the health and safety service and the outside consultants.

A good line of communication needs to be established and maintained to ensure a good work ethos between the two disciplines to ensure that there is continuity and effective management of the health facility.

In some cases where the service is in-house the occupational health nurse lacks authority in the workplace to ensure that procedures are followed through. Unfortunately in many cases, because the company is outsourcing the facility, they become more compliant to the suggestions offered by an outside consultant.

Costs

Many companies are concerned with the financial costs of this debate. I have intentionally left them to last as they should not be the prime reason for outsourcing an occupational health service.⁴ Companies who outsource primarily for this reason often fail in their expectation of the direct costs.

All applicable amounts of monetary contribution should be taken into account versus the total cost of the contract with contractor providing these benefits for themselves/their own staff:

- Annual salary
- Bonus (13th cheque)
- Annual leave pay
- Sick leave
- Uniform, travel or housing allowances
- Pension/Provident fund (company contributions)
- Medical Aid (company contributions)
- Overtime

The contractor needs to ensure that not only is her salary covered, but enough money is charged to cover personal costs of medical aid, pension fund schemes, administration cost and the costs of providing a locum when the OHP is away on holiday.

When providing the in-house service, the occupational health practitioner is most often the only person on the site with this specialised type of knowledge. When outsourcing, the occupational health practitioner is often supervised and has available a wider network of available resources to draw from. In-house, this area is often overlooked in the workplace where everyone naturally assumes that the practitioner is working to her full capacity, while she may feel isolated and out of touch.

Conclusion

To properly evaluate the direct costs of the occupational health service, one must ensure that the company who has had an in-house service and is now seeking to outsource this service is fully aware of all the costs that they incurred related to their service.⁵ Sometimes the failure of outsourcing is that the expectation of the client was unrealistic to the expectation of delivery of an outsourced service.⁶ No one of these components should be looked at in isolation but used in a holistic manner to evaluate any service.

I believe the outsourced occupational health service will be utilised more and more in the future as companies continue to downsize and need to concentrate on core issues alone and allow other competent professionals to function in their specialised capacity. Outsourcing will always be a cost-effective, efficient service meeting specific needs in the modern workplace.

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Advantages of an in-house occupational health care system:

What is the bottom line?

*Dr Rick Hawkes and Dr Jakes D S Mudly
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Occupational Health SA 2000; Vol 6, No 3: 16 - 17

Introduction

When determining the best kind of occupational health service for an industry or even a business, it is essential to go right back to basics and do an evaluation of the processes and procedures involved, i.e. do a health/hazard risk assessment (HRA). Then follows a vital step sometimes overlooked. A "social audit" of the company should be done to assess their philosophies, company style and culture, standards towards the worker, and potential liabilities that they may have should the decision be taken to have or not to have an occupational health service.

Starting at this point, the right service for the right situation will be found and many of the potential conflicts that could arise will be avoided. Thus a medical-social contract of occupational health services (MSCOHS) should be considered. Included in this is a full understanding of the roles and ethics involved that will form the foundation on which the new service will be built. Even if a review of a present service is done the MSCOHS should be conducted with the HRA. In fact, these should be reviewed on a regular basis in the same way that any risk management process is followed.

Why in-house?

We do not believe that there is a simple answer to this question, but there are certain boundaries of economies that will apply to the "bottom line" and that will assist decision-makers. Thus with the MSCOHS in place, it becomes a relatively simple task to work out the requirements. Included in the assessment, attitudes to staff employment, multi-skilling, transparency, the role of gender issues etc. are dealt with, which is why the MSCOHS is so important.

The MSCOHS and HRA

This will follow the traditional route with a variety of people participating and ensuring that all sides of the picture are included.

Our feeling is that when it is possible to have full-time, owner-employed staff, there is a dedication and psychological ownership of the business that is essential for the smooth running of the OH system.

This ownership has many tangible and intangible effects on the way the system runs and adds value to the company beyond the actual cash value or cost.

There is no doubt in our minds that with full-time staff, things work better and the vision of the factory clinic with a nurse and doctor who pop in now and again and then rush around doing everything as quickly as possible, is not seen. Generally the outsourced operators give this perception. This is certainly not a hard and fast rule, but a generalisation observed.

Certainly in many situations there will, of necessity be situations where, from a simple accounting point of view, a part-time/consulting service becomes essential. But once again one must look at the deeper hidden benefits available.

We will list a number of benefits and in order to keep the debate short will presume that the reader will see many of the hidden advantages:

- **Knowledge of products.** Through regular contact with the factory environment and the full working team, being in daily contact and by participation in other management processes, a spirit of well-being and camaraderie develops with enormous spin-offs.
- **Special needs of the processes.** The frequent contact with the work environment will ensure that the occupational health staff have more than adequate time to "prowl" around the factory/plant as part of their daily work; and not be seen as an outsider entering onto their "turf" and "sniffing out" problems. This is a very real problem with out-of-company medical staff. There is an inherent guilt in many managers who are not performing at their best and who fear that they may be found out! So in this way, formal and informal HRAs are being done on a frequent basis, rather than a walk through the factory where the management could well hide "bad" areas. The understanding of the worker in their workplace is an essential function of the occupational health staff. "What exactly is the person's job – would I be prepared to do it?" And there are some pretty awful jobs being done by workers that few in OH would be prepared to do! So when the worker comes in with vague complaints, you the medical staff know exactly what the person does, as well as the working conditions, increasing your overall understanding of health conditions.

- **The people factor is a very important one.** Particularly in our Southern Africa context where we have been exposed to numerous external risks and pressures as a result of the political and social changes, thus, the close relationships formed being a member of the team result in confidential trusting relationships that have therapeutic effects well above financial measurements, leading to a “happy workforce”.
- **Cost savings.** These are subject to direct and indirect measurement as mentioned above, but there is no doubt that Rand for Rand, there is much more value to be gained from a dedicated in-house service, should this be financially viable. Contractor fees have of necessity a profit motive in them, that must be born as a cost of the company and thus freeze finances that could otherwise be spent on improving the health of the workforce and the work environment. Just from a Public Relations point of view, the motivational benefits of the frequent presence of the medical staff in the factory leads to better use and care of equipment and the reduction of PPE failure. When services are outsourced, some of the finer very important issues like the availability of a choice of hearing protectors, is left to the store to find the cheapest model that is usually rigid, uncomfortable and a complete waste of time, effort and money. This has a direct bearing on the degree of suffering and the increased compensation claim costs, assessment rates by the Compensation Commissioner as well as other insurers.
- **Lost time.** This is always an area of contention with employees and employer. But if one goes back to our MSCOHS: if the social contract has been well-grounded and employees have been included in the process of setting up the service or re-instating a different view, the ethical responsibilities of the staff will be well understood. Confidentiality aspects, days booked off work etc. will be seen in their correct proportions. The ideal would be for medical staff to be employed by a combination of unions, employees and management but this does not happen often. It is not achievable in our present-day climate, but with newer legislation such as employment equity already in place, this should possibly be considered a viable option. This should create a framework of trust and good industrial relations in the work environment with open discussion about problems, rather than conflict. This then creates an atmosphere of credibility that is vital in the occupational health setting.
- **Sick notes.** With in-house services, the sick-note problems experienced in most industries can be dealt with quickly and efficiently, as per the guidelines laid out by SASOM.
- **Time.** In-house staff has time for many more activities within the wider work context, as can be seen:
 - Committees
 - Health and safety, shift work
 - Environment in and out of workplace
 - Risk assessments
 - Human resources and related health benefits, e.g. Medical Aid
 - General management
 - Education
 - Non-occupational diseases etc. Smoking, Diet, Stress, Psychological, HIV, Alcohol and Employment Assistance Programmes
 - Counselling
 - Preventative interventions
 - Epidemiology and research
- **Related SHE legislation.** The in-house medical service is usually in the position of having a better understanding of the practical workings of the law and are able to get involved freely without time pressures in the processes of setting up structures to become legally compliant, rather than what happens with externally-driven systems that demand additional contractors to come in and define yet further complications and rules! Once again the profit motive of the medical and other marketplace factors come into play.
- **Medical examinations of many kinds.** With the full background of the workplace environment, the staff is better able to assess the “Fitness for Work” medical examination of the employee both pre-employment and at other times such as the regular, transfer or even at exit time. In that area of ill-health retirements, the in-house knowledge and physical and psycho-social factors are also more easily detected and a “happy ending” for both employer and employee can be worked out. If alternative positions or counsel is sought, a consultant or disability service is used on a once-off basis.

Conclusion

So with that we rest our case, realising that the ideal situations may not always exist, but management and the occupational medical staff should always ask the “what if” questions and “what else can we do or offer with the available staff” not always necessarily in the direct medical/occupational field. It is well worth recognising that the staff available in South Africa is usually well trained and dedicated to the employees’ welfare as well as to the employer. The writers’ experience working in such an in-house occupational environment for a combined total of almost 33 years has proved both rewarding as well as satisfying and we believe has added enormous value to the “bottom line”.

Why buck a megatrend?

Dr Beau Dees

Afrox Healthcare Services

Occupational Health SA 2000; Vol 6, No 3: 18

The discussion will centre on the strategic environment in which South African business finds itself and how attention to core competencies is essential to success.

Introduction

Doing business in the new millennium would appear to be an ever more complex undertaking. This is in part due to a fundamental change in the macro environment or political economy in which business is conducted. An analysis of this macro environment would reveal that it is in the fields of politics, economics, as well as socio-behavioral and technological arenas that fundamental changes are being experienced.

It is not change itself that is new, but the pace of change which has become exponential. "On the economic plane, the world has been organized into a single, all-embracing unit of activity" - this was noted in a leader article in the Economist in 1930. What has changed into global integration has been the demise of political barriers, allowing open markets and the free flow of investment.

Business strategists came from several schools that, in their extremes, represent a centralist planning model versus the concept of a crafting learning organisational school. Whatever school of thought is accepted, business strategists agree that for business to succeed, it is necessary to optimise their own unique competencies.

Competitive advantage can only be achieved by understanding the core competencies of the organisation and then leveraging them. Wherever one looks, successful companies are focusing more and more on their core competencies to achieve their objectives.

Outsourcing trends

The practice of outsourcing functions that no longer offer a strategic advantage to an organisation can add incremental value to the business. Examples of outsourced services would include: IT, human resources, catering, security, routine administration and health care. In fact, one of the Detroit car manufacturers is reported to be considering outsourcing its auto making processes. Organisations are recognising that managing health care services is not within their basket of core competencies.

Health care or the strategic leveraging of the development of a healthy workforce, calls for skilled health care professionals whose focus is on health care. Such skills are costly and require continuous development.

With training budgets being trimmed in most organisations - despite the new Skills Development Act - and with compulsory re-certification for medical practitioners, the costs of just remaining on par in health care education are rising significantly.

The management of health care professionals also requires special skills. This stems from potential conflicts in terms of the responsibilities that health care professionals may need to shoulder between clinical functions and general management. This may well be part of the reason why outsourced health care companies are generally able to reduce staff complements since the outsourcing company needs to be solely focused on the health portfolio.

Elements

It is true that the management of the outsourcing relationship takes special skills that need to be understood. It is also true that senior executive support and involvement is critical to the success of any outsourcing endeavour. Fundamental to success, however, is a properly structured contract with deliverables being clearly demarcated.

While it is not the purpose of this paper to discuss contracts in detail, the following elements should be within the contract document:

- Evaluation of present services and client needs
- Scope of services
- Service fee and the criteria for its alteration
- Inclusions
- Exclusions
- Advantages.

As more and more successful companies engage in quality assurance systems such as ISO 9000, the structuring of supplier contracts according to clear quality management guidelines becomes even more important. Measurement criteria to allow ongoing monitoring of service levels is integral to this and needs to be spelled out in the contractual documentation.

Benefits

Careful attention to personnel issues prior to the time of the proposal for outsourcing being considered, pays large dividends. Health care staff has justifiable concerns which need to be addressed. In general, the benefits of belonging to a health care organisation whose core business is the provision of health care, far exceeds the conditions of service concerns of employees.

Relationships between the outsourcing company and the vendor are ideally long-term and so it is important for both parties to have shared values. If there is a fundamental difference in the long term objectives of the parties, it is unlikely that a successful outsourcing relationship can be obtained.

Conclusion

To conclude, outsourcing is the rational approach for companies who wish to concentrate on their core business, develop their competencies and reduce the "hassle-factor" of managing health care services. It also has the advantage of being a flexible method of managing in this era of right-sizing. Correct choice of vendor is critical, but as with any other management decision, is entirely possible if congruence of long-term objectives is obtained.

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AIDS and Worker's Compensation in the mining industry

Arthur Begley

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Occupational Health SA 2000; Vol 6, No 3, 20 - 21

The cost in terms of human and financial burden which acquired immune deficiency syndrome (AIDS) causes on South African society is an emotive issue and one which generates fear and anxiety often bordering on the irrational.

Rand Mutual Assurance is a short-term insurance company providing Worker's Compensation to the mining industry in South Africa. During 1999 a population of approximately 400,000 persons was insured and approximately 50,000 claims for occupational injury and disease were made with the company. Early analysis of these claims indicates that approximately one per thousand claimants became materially affected by the presence of AIDS sickness amongst the claimants.

A practical illustration of where this occurred makes interesting reading. A mineworker sustained a deep laceration of his thigh at work. Normally one would expect such an injury to result in:

- Absence of work of 10 days following suturing of the wound
- Medical follow-up on two occasions
- No permanent disability.

However because the patient had poor immunity due to AIDS sickness the end result was gangrene of the affected limb.

The gangrene required amputation, hospitalisation for more than 200 days resulting in unexpected costs due to time off work and a permanent disability of 45% entitling the claimant to a pension for life.

This case automatically illustrates how AIDS can affect workers' compensations costs with regard to:-

- Medical treatment
- Temporary Total Disability (TTD)
- Permanent disability

To be pro-active, Rand Mutual Assurance engaged the services of the NMG Actuarial Firm to assist with quantifying the potential financial impact of HIV/AIDS on future claims.

As a brief summary the following table is given below. Due to lack of quantity of data the actuaries have calculated a best case scenario and a worst case scenario impact. As the figures are somewhat frightening it would be prudent to do this actuarial examination again in the year 2000 and perhaps utilise the best case scenario predications for the immediate future impact calculations.

Predicated AIDS impact on medical costs	Year	Best case scenario cost increase	Worst case scenario cost increase
Medical Costs	2000	10%	197%
	2005	20%	383%
	2010	27%	510%
	2015	30%	567%
Permanent disability costs	2000	2%	10%
	2005	4%	20%
	2010	5%	27%
	2015	6%	30%
Total temporary disability costs	2000	5%	31%
	2005	10%	61%
	2010	13%	81%
	2015	15%	90%

Most Health care workers are already aware that treating AIDS-sick patients is going to cost more money and may deplete already scarce resources. Nevertheless it behoves the responsible health care worker preparing budgets to include the likely extra costs of treating AIDS-sick workers.

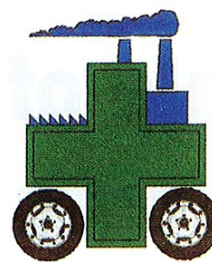
To do this the health care worker needs to estimate the following:

- The rate of workers becoming AIDS-sick per thousand per annum
- Accident rates and severity levels for the working population

- Cost norms in terms of treating the common injuries and a mechanism to “flag” cases where costs are above the norms for AIDS-sick workers
- Consider using the World Health Organisation guidelines for diagnosing AIDS-sick patients
- Be mindful of government treatment protocols in respect of AIDS-sick employees
- Start gathering data and sharing this data with colleagues (and actuaries) in an attempt to predict the short-, medium and long-term future AIDS costs with a view to being prepared.

The ethical and moral dilemmas of adequately treating AIDS-sick employees (especially those injured on duty) is a subject requiring attention, debate, jointly-agreed protocols between all stakeholders and again, a need for funds. Such issues are beyond the scope of this short report but inevitably many health care workers are facing these issues, often alone and in doubt, and assuredly many more will face this challenge in future.

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A tale of two tumours

Tomas Slavik
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Occupational Health SA 2000; Vol 6, No 3, 22 - 25

Breast and cervix cancers are the commonest malignancies afflicting South African women. This article briefly outlines the incidence, epidemiology, cause, pathology, clinical presentation, treatment and outcome of both tumours. Methods utilised for the early detection of cancerous and precancerous states are also discussed.

Introduction

The past few decades have seen a marked rise in the incidence of human malignancies, with a concomitant overall increase in cancer deaths. In 1994, cancer was responsible for approximately 23 % of all deaths in the United States, second only to cardiovascular disease. The most common tumours causing cancer death are those of the lung and large bowel, with breast and prostate carcinoma completing the list of top three lethal cancers in women and men respectively.¹ Chief among malignancies affecting South Africa women are breast and cervix cancer. These two tumours were responsible for a combined total of over 3000 reported deaths in South Africa in 1994, with slightly over half this figure attributable to breast cancer.² While significant advances have been made in the treatment of these malignancies, early detection still remains crucial in optimising the long-term outcome and containing costs with respect to subsequent therapy in affected individuals.

Breast cancer

Incidence and Epidemiology

According to the National Cancer Registry (NCR), an annual average of 3785 new breast cancer cases was reported between 1993 and 1995. The overall lifetime risk (LR) of developing this tumour for women was one in 36, varying from one in 13 among white females to one in 81 among black females.

Coloured and Asian women had a LR of one in 63 and 21, respectively.

Known risk factors include a positive family history, with the risk approximately doubled in women with a first-degree relative who developed breast cancer. Other risk factors include a long reproductive life (early menarche and late menopause), late age at first childbirth (>30 years old), nulliparity (not having had children) and obesity.

More than 95 % of breast cancers are diagnosed in South African women between the ages of 30 and 84 years, with a peak incidence in the late forties to late fifties. This is roughly comparable with the peak cited in international literature.³

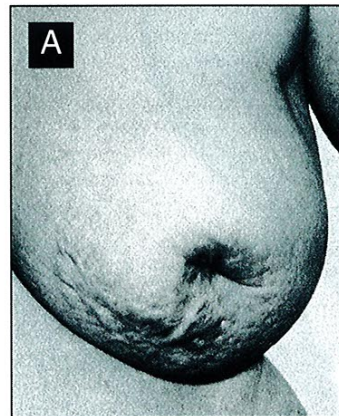
Cause, Pathology and Clinical Presentation

It is thought that genetic factors, hormonal imbalances and environmental factors all play a role in causing breast cancer. Many studies point to a genetic predisposition, including syndromes associated with an increased risk for other cancers e.g. of the ovary. The effect of a hormonal imbalance is borne out by many of the above risk factors. Longstanding and unopposed exposure to estrogen is thought to have an effect on growth factors, which stimulate breast epithelial growth. Environmental factors are considered to play a role, as is seen in the geographic differences in breast cancer incidence, as well as the possible effect of diet on tumour development.

Most invasive cancers present as a painless, firm and irregular mass, commonly in the upper outermost quadrant of the breast. The lesion is sometimes tethered or fixed to the skin. The most common histological type is invasive ductal carcinoma, which often has a fibrous (scirrhous) stroma, imparting the tumour with a stony

hard consistency. A bloody nipple discharge, skin puckering as well as scaling or retraction of the nipple may sometimes be a presenting sign of cancer.

Even more advanced cases may have skin ulceration, axillary lymph node enlargement or swelling of the arm. The diagnosis is



confirmed by means of cytological and/or histological examination of suspected tumour tissue.



Two cases of breast cancer, revealing (A) retraction of the nipple and puckering of the surrounding skin. (B) a fungating tumour ulcerating through the skin and adjacent nipple. (Browse N. *An Introduction to the Symptoms and Signs of Surgical Disease*. London: Edward-Arnold, 1978: 267, 270.)

Treatment and Outcome

Breast cancers, as all other malignancies, are always staged prior to therapy. This enables the physician to evaluate the extent of the tumour and its spread, so as to determine the optimal therapeutic modality or modalities. Staging is also crucial in assessing the long-term outcome of a given tumour. Evaluation of cancer size, axillary lymph node involvement and systemic (blood-borne) spread are included in the staging process.

The treatment options for breast cancer include surgery, radiation therapy, hormonal therapy and chemotherapy (in some cases possibly combined with bone marrow transplantation). Surgery traditionally entailed a radical mastectomy with axillary lymph node dissection, but now includes modified radical procedures, simple mastectomy or even local tumour excision with wide margins. Radiotherapy is sometimes utilised as primary treatment, but more often in conjunction with surgery (particularly in less radical operations) or for control of locally recurrent disease. Chemotherapy in the form of combination regimens is usually used for palliative treatment of widespread disease.

More recently, some attention has focused on determination of the amplification of a novel oncogene (HER2/neu) to identify a subset of breast cancer patients who appear to have a worse long-term outcome and demonstrate a poorer response to standard chemotherapy.⁴ Hormonal therapy involves the administration of hormone antagonists and is of particular value in the treatment of individuals with post menopausal breast cancer.

The overall 5-year survival rate for treated stage I disease (breast confined tumour < 2 cm in diameter without evidence of lymph node or blood-borne spread) is in excess of 80%, whereas stage IV disease (any tumour with blood borne metastases /systemic spread) is about 10%.

Lymph node involvement, including the level, absolute number and presence or absence of extranodal spread remains one of the most important prognostic parameters.⁵

Early detection

As early treatment of a localised tumour has the best chance of total eradication, a concerted effort to identify breast cancers at an early stage is justified. Self-examination is an easy, cost-effective and useful way of detecting suspicious breast abnormalities. Any lumps or mammary tissue irregularities should be reported to a physician without delay. As the sensitivity and discriminatory power of palpation is limited (a tumour is generally only palpable once it attains a diameter of at least 1cm), certain recommendations for mammographic screening to detect early cancers exist. Mammography is a radiographic technique whereby breast malignancies can be detected as a result of associated microcalcifications or increased tissue density. Large Swedish studies have confirmed the statistically significant benefit of mammographic screening in women between 40 and 74 years of age.⁶ General recommendations in international literature advise at least three-yearly screening, beginning at the latest at age 50. Individuals with first degree relatives who developed breast cancer need to enter screening programmes earlier. Mammography dramatically increases detection of very small tumours, thereby significantly improving the patient's long-term outcome and treatment-related health expenditure.

Cervix Cancer

Incidence and Epidemiology

This is the most common cancer among women in developing countries, with its overall incidence declining in the developed world.

Between 1993 and 1995, an annual average of 3387 new cases of cervix cancer was reported to the NCR, with the overall lifetime risk equaling one in 41.

This varies from one in 34 among black women, to one in 93 among white females, with South African black women having one of the highest reported incidence rates in the world (*Figure 2*). Interestingly, the cervix cancer incidence in SA has been overtaken by that of breast cancer during this period, although this may be due to spurious reporting/documentation. More than 90 % of reported cervical cancers occurred in women aged 30 – 74 years, with a peak incidence noted in the forties and early fifties. International figures cite 51.4 years as the average age for the diagnosis of invasive cervical cancer.⁷

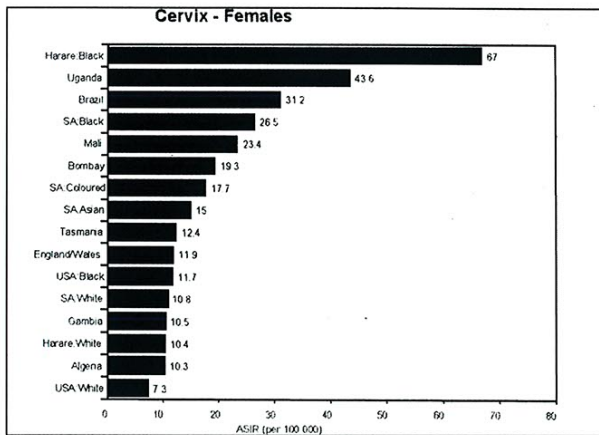


Figure 2: Bar diagram demonstrating international comparisons of cervical cancer incidence rates; ASIR = Age standardized incidence rate, per 100 000. (Cancer in South Africa, 1993 – 1995. Johannesburg: National Cancer Registry of South Africa, 1998: 15.)

Risk factors for developing cervix cancer include early age at first sexual intercourse, multiple sexual partners, and a male partner with multiple sexual partners. Other more poorly understood risk factors include long-term smoking and multiparity. Chronic oral contraceptive use appears to confer a mildly elevated risk, but may be confounded by associated sexual behaviour in this group of individuals.

Cause, Pathology and Clinical Presentation

Cervical cancers are predominantly of the squamous cell type with approximately 60 – 80% of tumours demonstrating this histological appearance. The association of invasive cervical cancer with the above-mentioned sexual risk factors motivated search for a venereally transmitted agent. There is now an irrefutable body of laboratory evidence linking human papilloma virus (HPV) to cervical cancer, especially of the squamous cell type. HPV is the causal agent of genital warts and also has a strong association with precancerous changes in cervical epithelium. The latter, now referred to as cervical intraepithelial neoplasia / CIN or a squamous intraepithelial lesion / SIL, is graded according to severity and provides an indication of the risk of transformation to an invasive cancer over time.^{8,9}

The most common presenting symptom in patients with cervical cancer is abnormal vaginal bleeding, often after intercourse or douching. Intermittent spotting, a foul-smelling discharge and pain may also be present, with clinical examination often revealing a fungating cervical tumour (Figure 3).

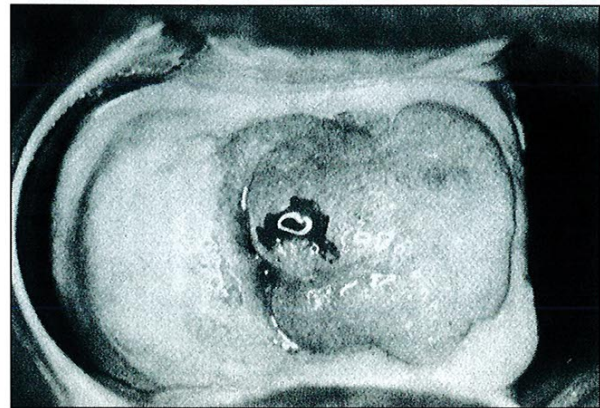


Figure 3: A fungating invasive cancer on the anterior cervical lip, as visualized during clinical examination. (Odendaal H.J. Ginekologie. Cape Town and Johannesburg: Juta & Co, Ltd, 1986: 283.)

Advanced tumours may cause weight loss, swelling of the legs, and a bloody urine or stool.

Treatment and Outcome

Therapeutic options for patients with cervical cancer include surgery, radiation or a combination of both.

Chemotherapy is sometimes used as adjuvant treatment, but relatively few patients demonstrate a prolonged response. Generally, a radical hysterectomy with pelvic lymph node dissection is performed on early invasive cancers. Less radical surgery or radiotherapy is utilised for the small percentage of glandular cancers (adenocarcinomas). More advanced tumours are treated by irradiation. Precancerous lesions (CIN/SIL) are generally followed up with subsequent smears if they are of a low grade, as these lesions have a very low rate of progression to invasive cancer.

High grade lesions are visualised by colposcopy, biopsied and usually treated by cone biopsy (cold knife or loop electro-surgical), which also assists in ruling out an invasive lesion. Simple hysterectomy is sometimes performed for high grade precancerous lesions.

The overall five-year survival rate for treated stage I squamous cell cancers (tumour confined to the cervix) is in excess of 90%, stage II (tumour extension beyond the cervix, but not to the pelvic wall) approximately 60%, stage III (tumour extension to the pelvic wall) about 30% and < 20% for stage IV disease (tumour extension beyond the true pelvis or involvement of the bladder/rectum inner lining). The five-year outcome for adenocarcinomas appears to be somewhat poorer.

Early Detection

No form of cancer better illustrates the overwhelming success of prevention, early diagnosis and curative therapy on mortality rates than cervix carcinoma. In the early 1900s, George Papanicolaou was the first person to devise and implement an exfoliative cytological procedure for early detection of cervical abnormalities. Worldwide implementation of cytology screening programmes has seen the morbidity and mortality due to cervix cancer decrease dramatically. In South Africa, utilisation of the World Health Organisation's guidelines modified to our particular environment entails the collection of a minimum of three cervical smears in a woman's lifetime, at the ages of 35, 45 and 55 years.¹⁰ Assuming an 80% coverage of the population, these measures should reduce cervix cancer incidence by approximately one half. Given ideal circumstances, biannual cervical screening should start in women by 25 and be continued on a three-yearly basis until the age of 60, provided the initial screenings are negative.¹¹ As pre-cancerous lesions develop one to two decades prior to invasive cancer, screening programs should be aimed at younger individuals, particularly in developing countries like South Africa, where the incidence of cervical cancer in black patients is extremely high.

Conclusion

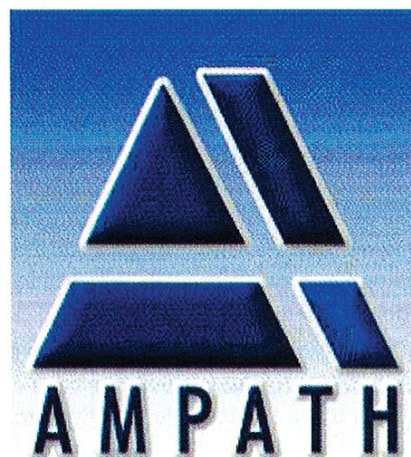
Breast and cervix cancers remain foremost among malignancies causing death in South African women. While symptoms caused by these tumours often bring the patient to their physician or health care worker, the cancers identified in this way are often at an advanced stage and associated with a poor outcome.

Raising patient awareness and optimally utilising methods of early detection, including regular self-examination and mammography for breast cancer, as well as cytological screening for cervix cancer, will decrease the morbidity and mortality presently caused by these malignancies.

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EXCELLENCE IN PATHOLOGY

Drs. Du Buisson, Bruinette & Kramer Inc./Ing

Hormonal Replacement Therapy in the Menopause

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Pietermaritzburg

Occupational Health SA 2000; Vol 6, No 3, 26 - 29

Introduction

Hormonal replacement therapy (HRT) offers the postmenopausal woman relief from immediate symptomatology and long-term effects of oestrogen withdrawal following ovarian failure at the end of the reproductive phase of life. In the quest for accurately assessing the risk-benefit scenario from so-called evidence-based medicine, two large trials of HRT have recently commenced internationally (WHI and WISDOM). The results will not be available until 2007 and 2011 respectively.

Climacteric Symptoms

Classically, hot flushes, night sweats, mood swings, emotional debility and headaches may occur postmenopausally, signifying decreased oestrogen secretion and elevation of pituitary gonadotrophins. Clearly not all patients suffer this symptomatology. For some, cessation of periods may be the only signal of the utilisation of the last ovarian follicle. For the affected, however, this may be a time of great distress. For others, the perimenopause may be a time of great distress with wild fluctuations in oestrogen levels which may, in fact, be markedly elevated at times.

Oestrogen Deficiency Syndrome

If one accepts that the menopause is an endocrinopathy like any other, for example hypothyroidism or hypoinsulinism, then the above is an appropriate term to describe what happens in the decades that may follow the menopause in the absence of HRT. Oestrogen-dependent tissue like vaginal, bladder and to a certain extent skin, will develop atrophic changes and collagen loss resulting in vaginitis, dyspareunia, bladder dysuria and ageing of the skin.

However, it now seems that there are oestrogen receptors in most tissues of the body including the skeleton, cardiovascular system, brain, breast, uterus and bowel.

A number of mechanisms have been proposed to explain the vascular effects of oestrogen and although no single specific mechanism has yet been found to be wholly responsible, it is known that oestrogen reacts with receptive proteins resident in haemophilial cells and that physiological concentrations of oestrogen lead to nitric oxide release and vasodilation. A combination of the above and the beneficial effects of oestrogen in optimising lipoprotein cholesterol levels, lead to the protective effect in the cardiovascular system with less coronary artery disease, stroke and Alzheimer's disease, in HRT users as opposed to non-users.^{1,2,3}

Osteoporosis studies data confirm the protective effects of oestrogen.⁴ The risk of hip fracture is reduced by 30% and compression fracture of the vertebral bone by 50%. Oestrogen therapy should be continued indefinitely, "the longer the treatment, the stronger the bones" being the dictum because cessation of therapy results in return to non-user risk of fracture within ten years.

Oestrogen works by reducing osteoclastic activity, bone resorption and thus bone turnover. Calcium supplementation potentiates the effect of oestrogen on bone mass and should be given to all women -together with vitamin D - over the age of 60.⁵

Alzheimer's Disease

The prevalence of Alzheimer's disease is 5% in the over 65 age group. Women are more affected than men. HRT is estimated to result in a 25-50% reduction in the risk ratio of the disease and may improve those afflicted with the disease.

Coronary Heart Disease

Studies now confirm that high risk patients have shown the greatest gain for cardio protection from HRT, where a 70% mortality reduction due to coronary heart disease over 15 years in users of oestrogen HRT compared to non-users has been shown.^{6,7}

The effect will not be so great in those at low risk, whereas the Framingham study showed that those who were at high risk for CHD and low risk for breast cancer, the average gain in life expectancy in HRT users is 41 months.⁸

Carcinoma of the Large Bowel

There is some emerging data from studies conducted in the United States that HRT offers women a protective effect against these tumours. However, further studies are ongoing and hopefully will confirm the above.

Risks of oestrogen therapy Endometrial Cancer

The association of unopposed oestrogen and increased risk of endometrial cancer is well proven. The excess risk increases with dose and duration of oestrogen (10 years of unopposed oestrogen increases the risk tenfold) and persists for many years after oestrogen therapy is stopped.

HRT has finally gelled

Femigel

A 17 β oestradiol gel applied directly to the skin

For the past 20 years, French women have enjoyed the convenience and efficacy of natural ovarian oestrogen replacement in the form of a gel. Now available in South Africa, Femigel (known as Oestrogel in Europe) is an easy to use, cosmetically acceptable and highly effective treatment for the relief of menopausal symptoms.²

Convenient

Metered doses of gel are rubbed onto the skin. The gel dries quickly, is non-greasy and odour-free.

Minimal risk of skin irritation³.

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References:

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However, oestrogen-induced uterine cancer is usually, but not always, of low malignancy and is almost entirely prevented by the concomitant use of progesterone.

In the initial five years after the menopause the HRT may be administered cyclically, inducing monthly withdrawal bleeds. Thereafter a continuous oestrogen and progesterone combination may be utilised to induce amenorrhoea whilst still maintaining the advantages of endometrial protection.

Breast Cancer

Most studies have found no increased risk of breast cancer in women who have ever used oestrogen for less than two years.⁹ However, a recent collaborative re-analysis of data from 51 studies have shown that the risk of breast cancer increases minimally with long-term oestrogen use.¹⁰ Accepting that the incidence of breast cancer by age 70 in postmenopausal women not taking HRT is 45 per 1000, the studies showed that the incidence of breast cancer increases to 47 per 1000 after 5 years, 52 per 1000 after 10 years and 57 per 1000 after 15 years. Interestingly, the cancers are of low grade and do not have a significant effect on mortality. As indicated in the introduction, further long-term studies are under way which may confirm or refute the above data.

Venous thrombo-embolism

Recent phase-control studies have shown a moderate increase in the relative risk of venous thrombo-embolism (VTE) in women on oestrogen containing HRT.^{11,12} A population-based nested case control study from the United States found that women with idiopathic VTE had a matched relative risk estimate of VTE of 3.6 (95% CI 1.6-7.8) in current users of oestrogen compared to non-users. The absolute risk was estimated at nine per 100 000 women per year in non-users compared to 32 per 100 000 in users. Other studies tend to suggest that the risk appears to be highest among short-term current users.

Over the last decade, our understanding and knowledge of the pathogenesis of VTE has increased with the identification of a number of new thrombophilic defects – abnormalities of haemostasis (acquired or inherited) which interact with environmental factors to increase the risk of VTE.¹³ Examples of these are hyperhomocysteinaemia, Factor 5 B Leiden mutation and antiphospholipid antibody syndrome.¹⁴ Clearly these patients need to be screened and approached with caution in regard to dosage and duration of HRT use.

How to Treat

Perimenopause: Patients with elevated oestrogen levels and menstrual dysfunction are best treated with Primulat N 5mg tds premenstrually, or Climen or a low dose combined oral contraceptive such as Melodene, until cessation of ovarian production is proven. Simply giving oestrogen may well result in side effects and lifelong poor compliance to HRT.

Postmenopause: All too often the prescription of a single-hormone regimen in all women, large and small, young and old, causes side effects (water retention, breast tenderness, abdominal bloating, bleeding, premenstrual syndrome and depression). Side-effects reduce compliance.

These can be minimised or prevented by starting with a lower dose, resolved by lowering the dose or changing the hormone or route of delivery. Oestrogen replacement doses are designed to prevent bone loss. Standard doses of progestones are designed to prevent endometrial cancer (see Table I). Standard doses preserve bone in most postmenopausal women but some women require more oestrogen or testosterone. Current thinking is that the oestrogen dose should be lowered with advancing age so that at the age of 60 women need only 0.3mg of conjugated equine oestrogen plus 1000mg calcium daily to preserve bone, a regimen that causes little mastalgia, bleeding or endometrial hypoplasia.

Who to Treat?

It is clear that those patients at risk of osteoporosis, coronary heart disease and Alzheimer's should be considered as being at high risk and should be treated.

Table I. The range of hormonal preparations		
Preparation	Route	Frequency
CYCLICAL OESTROGEN/PROGESTAGEN (MENORRHOEA)		
Estropause N	Oral	Daily
Climen	Oral	Daily
Trisequens	Oral	Daily
Premelle cycle	Oral	Daily
Estracombi 50	Transdermal	Twice weekly
Evorel Sequi	Transdermal	Twice weekly
CONTINUOUS OESTROGEN/PROGESTAGEN COMBINATIONS (AMENORRHOEA)		
Premelle 2.5/5.0mg	Oral	Daily
Kliogest	Oral	Daily
Evorel Conti	Transdermal	Twice weekly
OESTROGEN-ONLY		
Estropause	Oral	Daily
Premarin	Oral	Daily
Estrofem	Oral	Daily
Femigel	Transdermal	Daily
Evorel	Transdermal	Twice weekly
Climara	Transdermal	weekly
Oestrogen pellets 3x20mg	Intragluteal	6-monthly

The beneficial effects should also not be underestimated in improving the well-being of the patient and the removal of symptomatology as discussed above.

When to Treat?

The greatest bone loss occurs in the first five years of the menopause and therefore this time should be considered for commencing therapy.

There are those who advocate starting oestrogen later rather than at the age of the menopause: current use of oestrogen is associated with a lower risk of heart disease and fracture of the spine and hip.¹⁶ Women are not likely to take oestrogen from the menopause to the grave. Most women have heart disease and hip fractures after the age of 65 so fewer women will need to be treated to prevent these conditions if hormone therapy was begun later. Delaying oestrogen reduces the duration of treatment and presumably the risk of breast cancer while still protecting bone and the lower oestrogen facilitates the identification of women at high risk of fracture because bone density at age 60 is a better predictor of future fracture risk than is perimenopausal bone density.

Delaying treatment is not recommended for women who have a premature menopause, severe climacteric symptoms, or established osteoporosis. It may be an option for asymptomatic, recently menopausal women who are at no particular risk of fracture.

Conclusion

The author believes that all women should be given the benefit of long-term HRT after careful counselling and individual tailoring of therapy. DEXA bone scans are offered to those at high risk of osteoporosis and regular mammograms carried out for women with a breast cancer risk. In the first five years after the menopause, the endometrium is protected by cyclical addition of progesterone. Thereafter the preparation may be changed to a continuous oestrogen-progesterone combination, which allows menstrual-free cycles, and may be continued long-term, provided that no breakthrough bleeding occurs. After the age of 65, ultra-low doses of oestrogen (Premarin 0.3mg or Evorel 25) may be considered. Those at high risk of breast cancer or endometrial hyperplasia can now be treated with Raloxifene or Livifem, which confer excellent cardiovascular and skeletal protection without the potential adverse effects of oestrogen.

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Hein Hughes-Treherne

1957 - 2000

Hein was born in Pretoria on 31 May 1957 and spent most of his childhood in Pretoria. He obtained a Higher Teaching Diploma as well as a National Diploma: Chemical Engineering and was appointed by Sasol Synthetic Fuels [SSF] Secunda in 1981 as Superintendent: Occupational Hygiene.

He was appointed as Manager: Occupational Hygiene at Poltech in 1995 and played an important role in the formation of Poltech (Pty) Ltd. At the time of his death he was Managing Director of Poltech Pty (Ltd).

In the late eighties Hein spent two periods in the United States of America, during which he obtained American qualifications in Occupational Hygiene. During November 1997 Hein obtained the British Institute of Occupational Hygienists (BIOH) "Certificate of Operational Competence in Occupational Hygiene".

He also equipped himself in the field of Environmental Management with great success.

Professionally, Hein was a very involved, active, motivated person and was a key Council member of the Occupational Hygiene Association of Southern Africa



(OHASA) for several years. Hein served two terms as President of OHASA during which time the organisation had several highlights. He was currently serving as President of the newly formed OHASA (Incorporating IOHSA) and played a pivotal role in the new changes and directions in Occupational Hygiene. Hein was an accomplished speaker, delivered several papers at conferences and presented short courses in occupational hygiene. He also wrote several articles regarding Occupational Hygiene and Environmental Management. Hein

always had time to help others and was always positive about achieving his goals and objectives.

Hein married Rene in October 1981 and they have two children Danell and Eduard. His love and commitment to his family was always evident in conversation. Hein had several hobbies that included music, weapons, hunting, camping, diving and outdoor living.

To his colleagues Hein was a true friend and those who knew him admired him. He will surely be missed. May he rest in peace.

Written by: Phillip van Dyk and Leon Harmse

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University of Pretoria

1. **Indicate the correct answer: The commonest malignancies afflicting South African women are cancers of the:**
 A - Cervix and colorectum B - Breast and cervix
 C - Breast and lung D - Lung and colorectum
 E - Cervix and lung
2. **Which of the following is NOT a risk factor for developing breast cancer?**
 A - A positive family history B - A long reproductive life
 C - Large breasts D - Late age at first childbirth
 E - Nulliparity
3. **True or false? Most breast cancers present as a painful, firm and irregular mass.**
 A - True B - False
4. **Which of the following has been linked to cervical cancer?**
 A - Influenza virus B - Herpes varicella/zoster virus
 C - Hepatitis E virus D - Human papilloma virus
 E - Ebola virus
5. **Which is correct? Utilisation of the World Health Organisation's guidelines for South Africa, cervical smears should be taken during a woman's lifetime, at:**
 A - 35, 45 and 55 years B - 25, 30 and 35 years
 C - 20, 25 and 30 years D - 15, 20 and 25 years
 E - 20, 40 and 60 years
6. **Indicate if a workplace is regarded as a public place under the Tobacco Products Amendment Act:**
 A - True B - False
7. **True or False: Is the South African Medicines and Medical Devices Regulatory Authority Act in force?**
 A - True B - False
8. **True or False: Does the National Road Traffic Act make provision for more stringent legal limits for alcohol levels in the blood?**
 A - Correct B - Incorrect
9. **In the best-case scenario, the ten-year impact of AIDS on medical costs will be:**
 A - 27% B - 36%
 C - 12% D - 10%
 E - 15%
10. **AIDS will impact on worker's compensation costs with regard to:**
 A - Medical treatment B - Temporary disability
 C - Permanent disability D - All of the above
 E - None of the above
11. **True or false: Early analysis shows that approximately one per thousand claimants become materially affected by AIDS:**
 A - True B - False
12. **The new society for occupational hygiene is called:**
 A - Occupational Hygiene Association of Southern Africa (OHASA)
 B - South African Institute for Occupational Hygiene (SAIOH)
 C - Institute of Occupational Hygienists of Southern Africa (IOHSA)
 D - International Hygiene Association (IOHA)
 E - Southern African Institute for Occupational Hygiene (SAIOH)
13. **True or false: More and more companies are outsourcing their occupational health services:**
 A - True B - False
14. **True or false: Generally outsourcing is cheaper:**
 A - True B - False
15. **Sometimes the failure of outsourcing is due to unrealistic expectations:**
 A - True B - False
16. **Choose the correct answer: The dose of oestrogen hormone which does not stimulate the endometrium is:**
 A - Evorel 100 B - Premarin 0.375mg
 C - Premarin 0.625mg D - Premarin 2.5 mg
 E - Prempak 0.625mg
17. **Which option is best for patients at high risk of breast cancer and osteoporosis?**
 A - Femigel B - Oestrogen and progestogen
 C - Low dose oestrogen D - Raloxifene
 E - Hormone pellet implants
18. **What is the main risk of unopposed oestrogen therapy in the non-hysterectomised woman?**
 A - Breast lumps B - Endometrial carcinoma
 C - Alzheimers' disease D - Arterial thrombosis
 E - Hip fracture
19. **Which of the following patients may not benefit from HRT? Those with:**
 A - Cardiovascular disease B - Osteoporosis
 C - Dyspareunia D - Alzheimers' disease
 E - Breast cancer
20. **The time of greatest bone loss in a woman's life is?**
 A - First five years after the menopause
 B - Perimenopause
 C - After simple hysterectomy
 D - During lactation
 E - After age 70

Instructions

1. Read the articles in the journal to find the answers to the questions
2. Make sure that your name and address details are correctly filled in.
3. Clearly indicate the edition of the journal
4. Answer questions by ticking correct answers with an "x" in the appropriate box. Use a black pen and do not mark more than one answer.
5. Keep a copy for your records.
6. Post the completed form to: CPD Points (Occupational Health SA) PO Box 16179, Lyttleton, 0140. Please do not register the envelope.
7. All completed forms must be posted - not faxed
8. Answers are recorded by SASOM and a certificate will be issued in due course.

SHE2001

All aspects of occupational health and safety, environmental protection and fire and emergency services will be exhibited under one roof for the first time in 2001.

South Africa's premier occupational health and safety exhibition – SHE 2001 – will join forces with the Fire and Emergency Medical Services exhibition. The two will be run in tandem from 16 to 18 May 2001 at the MTN Sundome, Johannesburg.

“For visitors the natural synergy between the two shows means added value as they are exposed to the full spectrum of innovative products and services relating to all aspects of these fields,” says Melanie Froneman, exhibition director.

Each exhibition will have its own industry-specific conference running alongside it.

The Association of Societies for Occupational Safety and Health (ASOSH) will be hosting an interactive conference which will tackle topical issues head-on while the Fire and Emergency services conference will focus on latest trends and technologies in their field.

More information can be obtained from SA RAI at (011) 794-5511

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Dr Clive Evian
 MBBCh, M Med (Community Health)



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University
A Dictionary of Epidemiology (http://www.kings.cam.ac.uk/~js229/glossary.html) University of Cambridge, UK
Occupational Epidemiology (http://www.agius.com/hew/resource/occepi.htm) HE&W, UK. Tutorial
Supercourse: Epidemiology, the Internet and Global Health (http://www.pitt.edu/~super1/) University of Pittsburgh, USA. A global academic faculty to share lectures in the area of public health and the Internet. Over 20 Mirror sites around the world including one at the Medical Research Council of South Africa (MRC), Tygerberg (http://www.mrc.ac.za/supercourse/html/main/index.htm)
WWW Virtual Library: Biostatistics (http://www.biostat.washington.edu/Xvlib/) Department of Biostatistics, University of Washington, USA
WWW Virtual Library: Demography & Population Studies (http://coombs.anu.edu.au/ResFacilities/DemographyPage.html) Australian National University
WWW Virtual Library: Epidemiology (Public Health, Biosciences, Medicine) (http://chanane.ucsf.edu/epidem/epidem.html) Department of Epidemiology and Biostatistics, University of California San Francisco, USA
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South African SHE Law and Policy Update: Acts, Bills and White Papers

David W. Stanton

Chamber of Mines

Occupational Health SA 2000; Vol 6, No 3: 34 - 36

A considerable amount of law and policy has been developed in recent years. This Update lists Acts, Bills and White Papers which contain an occupational safety, health or environmental (SHE/ EHS) component and which have been published since the Occupational Health and Safety Act 1993.

Full text of the documents listed can be obtained via the links on the Legislation page of ASOSH.ORG (Southern African component). This page also provides links to SHE law reviews. The next Update will cover Regulations, Codes of Practice and Guidelines.

Acts

National Nuclear Regulator Act (No. 47 of 1999)

Department of Minerals and Energy, Government Gazette (GG) No. 20760, 23 December 1999

Provides for the establishment of a National Nuclear Regulator (formerly Council for Nuclear Safety) in order to regulate nuclear activities and provide for safety standards and regulatory practices for protection of persons, property and the environment against nuclear damage.

Nuclear Energy Act (No. 46 of 1999)

Department of Minerals and Energy, GG No. 20759, 23 December 1999

Provides for the establishment of the South African Nuclear Energy Corporation Limited (formerly Atomic Energy Corporation) to regulate the acquisition and possession of nuclear fuel and prescribe measures regarding the discarding of radio-active waste and the storage of irradiated nuclear fuel.

Tobacco Products Control Amendment Act (No. 12 of 1999)

Department of Health, GG No. 19962, 23 April 1999

The original Tobacco Control Act (No. 83 of 1993) allows for the prohibition and restriction of smoking in public places and for the control over the sale and advertising of tobacco products. Under the Amendment Act the definition of a public place has been widened to include a workplace.

South African Medicines and Medical Devices Regulatory Authority Act (SAMMDRA)

Department of Health, GG No. 19615, 18 December 1998

To provide for the regulation and registration of medicines intended for human and for animal use and for the control of persons who may compound and dispense medicines. Required the occupational health nurse to complete an approved course in pharmacology in order to be licensed to dispense medicines. Act set aside due to administrative errors.

National Environmental Management Act (No 107 of 1998)

Department of Environmental Affairs and Tourism, GG No. 19519, 27 November 1998

Provides for cooperative environmental governance. Established the National Environmental Advisory Forum and the Committee for Environmental Coordination. Following the enactment of NEMA a number of the powers of the **Environment Conservation Act** (No. 73 of 1989) have either been repealed, or may be repealed or assigned to the provinces. A number remain in force for the time being including sections 21, 22 and 26 that deal with environmental impact assessments.

Employment Equity Act (No. 55 of 1998)

Department of Labour, GG No. 19370, 19 October 1998

To provide for employment equity. Section 6. (1) No person may unfairly discriminate, directly or indirectly, against an employee, in any employment policy or practice, on one or more grounds, including race, gender, sex, pregnancy, marital status, family responsibility, ethnic or social origin, colour, sexual orientation, age, disability, religion, HIV status, conscience, belief, political opinion, culture, language and birth.

<p>National Water Act (No. 36 of 1998) Department of Water Affairs and Forestry, GG No. 19182, 26 August 1998 Provides for fundamental reform of the law relating to water resources. Includes the protection of the quality of water resources (pollution prevention).</p>
<p>South African Maritime Safety Authority Act (No. 5 of 1998) Department of Transport, GG No. 18796, 31 March 1998 Provides for the establishment and functions of the South African Maritime Safety Authority (SAMSA). The objectives of the Authority are to ensure safety of life and property at sea; to prevent and combat pollution of the marine environment by ships; and to promote the Republic's maritime interests.</p>
<p>Basic Conditions of Employment Act (No. 75, 1997) Department of Labour, GG No. 18491, 5 December 1997 Gives effect to the right to fair labour practices referred to in section 23(1) of the Constitution by establishing and making provision for the regulation of basic conditions of employment.</p>
<p>Constitution of the Republic of South Africa (Act No. 108 of 1996) GG No. 17678, 18 December 1996 Fundamentally altered the legal environment and all laws must be interpreted within the context of the Constitution. Everyone has the right to an environment that is not harmful to their health or well being (section 24); an objective of local government is to promote a safe and healthy environment (section 152).</p>
<p>National Road Traffic Act (No. 93 of 1996) Department of Transport, GG No. 17603, 22 November 1996 Implementation date - 1 June 2000 (GG No. 20982, 17 March 2000). Extensive requirements for road traffic including road safety and fitness to drive. Sets more stringent legal limits for alcohol in blood. Makes provision for the regulation of the transportation of dangerous goods by road.</p>
<p>Mine Health and Safety Act (No. 29 of 1996) Department of Minerals and Energy, GG No. 17242, 14 June 1996 Amendment Act (No. 72 of 1997), GG No. 18488, 3 December 1997 Provides for protection of the health and safety (H&S) of employees and other persons at mines; to promote a culture of H&S; to promote training and human resource development; to regulate employers' and employees' duties to identify and eliminate, control and minimise the risk to H&S; and to entrench the right to refuse to work in dangerous conditions.</p>
<p>Labour Relations Act (No. 66, 1995) Department of Labour, GG No. 16861, 13 December 1995 Changes the law governing labour relations and for that purpose gives effect to section 27 of the Constitution. Promotes employee participation in OHS decision-making through the establishment of workplace forums. Provides guidelines in cases of dismissal arising from ill health or injury.</p>
<p>South African Qualifications Authority Act (No. 58 of 1995) Department of Education, GG No. 16725, 4 October 1995 Provides for the development and implementation of the National Qualifications Framework (NQF) and for this purpose established the South African Qualifications Authority (SAQA). NQF objectives include the creation of an integrated national framework for learning achievements and to facilitate access to, and mobility and progression within education, training and career paths.</p>
<p>Occupational Diseases in Mines and Works Amendment Act (No. 208 of 1993) Department of Health, GG No. 15449, 28 January 1994 Amended the 1973 ODMWA compensation act, so as to do away with all provisions which differentiated between persons on the ground of their sex or population group. Made the possession of a certificate of fitness by all persons performing risk work in controlled mines and works compulsory. The application of sections of ODMWA were suspended by the Mine Health and Safety Act 1996.</p>
<p>Compensation for Occupational Injuries and Diseases Act (No. 130 of 1993) Department of Labour, GG No. 15158, 6 October 1993 Amendment Act (No. 61 of 1997) GG No. 18430, 14 November 1997 COIDA provides for compensation for disablement caused by occupational injuries or diseases sustained or contracted by employees in the course of their employment, or for death resulting from such injuries or diseases.</p>

<p>Occupational Health and Safety Act (No. 85 of 1993) Department of Labour, GG No. 14918, 2 July 1993 Provides for the health and safety of persons at work and the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work. Established the Advisory Council for Occupational Health and Safety.</p>
<p>Bills</p>
<p>Council For The Built Environment Bill Department of Public Works To provide for the establishment of a Council for the Built Environment. Council objectives include the promotion of sound governance of the built environment (BE) professions and the promotion of appropriate standards of health, safety and environmental protection within the BE.</p>
<p>Draft Disaster Management Bill, 2000 Department of Provincial and Local Government, GG No. 20814, 21 January 2000 To provide for an integrated, co-ordinated and common approach to disaster management by all spheres of government and for the establishment of a national disaster management centre and provincial and municipal disaster management offices.</p>
<p>Draft National Health Laboratory Services Bill Department of Health, GG No. 20430, 3 September 1999 To provide for the establishment of the National Health Laboratory Service, the abolition of the South African Institute for Medical Research; the Institute for Pathology and the National Centre for Occupational Health.</p>
<p>White Papers / Policy</p>
<p>Integrated Pollution and Waste Management for South Africa Department of Environmental Affairs and Tourism, GG No. 20978, 17 March 2000 A policy on pollution prevention, waste minimisation, impact management and remediation. Underscores the importance of preventing pollution and waste and avoiding environmental degradation.</p>
<p>National Policy on Testing for HIV, National Policy for Health Act (Act No. 116 of 1990) Department of Health, GG No. 20710, 10 December 1999 Sets out the proposed circumstances under which HIV testing may be conducted.</p>
<p>National Policy On Aircraft Noise And Engine Emissions Department of Transport, GG No.19624, 24 December 1998 Draft national policy on aircraft noise and engine emissions (air pollution).</p>
<p>A Minerals and Mining Policy for South Africa Department of Minerals and Energy, GG No. 19344, 20 October 1998 Chapter 3: People Issues - Government will promote healthy and safe working conditions at all mines and, in accordance with national health policies, ensure that mines deal humanely with the health consequences of work in the mining industry. Chapter 4: Environmental Management - Government will ensure that the essential development of the country's mineral resources will take place within a framework of sustainable development and in accordance with national environmental policy, norms and standards.</p>
<p>Integrated National Disability Strategy Office of the Deputy President November 1997 Represents the government's thinking about what it can contribute to the development of disabled people and to the promotion and protection of their rights.</p>
<p>White Paper for the Transformation of the Health System In South Africa Department of Health, GG No. 17910, 16 April 1997 Policy objectives and principles upon which the Unified National Health System will be based. Chapter 11: Environmental Health, Chapter 14: Occupational Health. The long-awaited National Health Bill is still elusive. The Health Act (No. 31 of 1977) is likely to be replaced</p>

Calendar of Congresses and Conferences

2000 June 7	Care for the carer Northern Transvaal Society of Occupational Health Nurses	BMW Rosslyn	Alta Kritzinger (012)841-3113
July 5	Divorce and related matters Northern Transvaal Society of Occupational Health Nurses	SABS Groenkloof	Alta Kritzinger (012)841-3113
9-14	International Aids Congress	Durban ICC	Dr Gustaf Wolhardt, Tel: (012) 481-2031
August 2	Accessing health and safety via the internet Northern Transvaal Society of Occupational Health Nurses	PMP Pretoria West	Alta Kritzinger (012)841-3113
27-1 Sept	ICOH 2000 - 26th International Congress on Occupational Health	Singapore	ICOH 2000 Congress Secretarial Dept Com- munity, Occupational and Family Medicine Faculty of Medicine MD3, National University of Singapore, Lower Kent Road, Singapore 119260 Tel: (65) 874-4989 or Fax: (65) 779-1489 E-mail: icoh2000@post1.com
September 6	AGM Northern Transvaal Society of Occupational Health Nurses	CSIR	Alta Kritzinger (012)841-3113
15-17	SAPS CME (South African Pulmonology Society)	Elangeni Durban	Sally Elliot Tel: (021) 406-6381, Fax: (021) 448-6263 E-mail: sally@medicine.uct.ac.za
24-27	Official Congress of the Infection control Society of SA	ICC Durban	John Grande, Tel: (031) 463-2323 Fax: (031) 44-6565 Tel: (011) 787-2183
October 4	Northern Transvaal Society of Occupational Health Nurses	Hemic Ferro Chroom, Brits	Alta Kritzinger (012)841-3113
6-8	Emergency & Services Industry Exhibition	Kyalami	Ocean Media, Tel: (011) 796-1700
December 4-7	Physicians Refresher Course	Education Building University of Cape Town Middle Campus	Sally Elliot Tel: (021) 406-6381, Fax: (021) 448-6263 E-mail: sally@medicine.uct.ac.za
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GUIDELINES FOR AUTHORS

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Articles may be submitted in the following categories:

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 - These should follow the format of: introduction, methodology, results, discussion and references. The length should be between 2 000 and 2 500 words.
 - Original and review articles must include a short abstract of less than 150 words and will be refereed. Manuscripts will be submitted to referees as confidential without naming the author and all referees shall remain anonymous.
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Authors are solely responsible for the factual accuracy of their work and that their work does not infringe copyright.

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- **Layout**
 - Manuscripts should be typed double spaced, using only one side of the paper.
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 - 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 should use Arabic numerals 1,2,3 etc.
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- Authors should submit one original article and two copies of each manuscript. This should be accompanied by a diskette or sent via email. Diskettes will be returned.

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Examples:

Journal references

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

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

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Articles should be sent to Ilse Dreyer, Managing Editor, at P.O. Box 1307, Ferndale, 2160 or faxed to (011) 791-2618 or emailed to jeni@cmmaccess.co.za.

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It is well laid out with easy-to-read text on causes, clinical features, examination and management, including drug management. As stated, some of the guidelines differ slightly from those presently being taught in the hos-

pital situation, but this only enhances its use for those of us who are out in the field working without the guiding hand of the medical officer.

For my colleagues in the occupational health field, I would suggest very strongly that this manual be readily available as a reference source for those times you feel a bit at sea and isolated in your clinic. For the community health nurses who are often working further afield in the rural areas, I can't imagine not being able to reach out and access the knowledge contained in this manual at your fingertips. It compliments and enhances one's knowledge. I would like to suggest that learning institutions make this manual part of their curriculum, thereby automatically make it more readily accessible to all nursing professionals.

Dee Boorman

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NATIONAL

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- Approved Inspection Authority

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NATIONAL

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