Occupational HEALTH

SOUTHERN AFRICA

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

In this issue:

Latex allergy - a major dilemma for health providers

Occupational dermatitis in mine workers referred to a private dermatological practice

Managing employee incapacity in terms of the new Labour Relations Act and related legislation (part 2)

Nissan South Africa medical services: a new concept

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

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Editorial



One of the prominent features of the past few editions of the Journal has been the development taking place within the new Acts of Parliament in relation to health and safety. Entwined in this is the Labour Relations Act and the parameters under which issues such as employment contracts, implications for the economy, and an equitable measure of balancing the empowerment of the disadvantaged with the labour market. Pre-employment medical examinations will become pre-placement, and ill health assessments will take on new dimensions. We ask readers to note Strasheim and Botha's second part to their article on Employee Incapacity in terms of the new Labour Relations Act.

Le Grange outlines the framework under which the Mines Health and Safety Act is compared to the Occupational Health and Safety Act, and draws attention to the relevance of these changes in a Guest Editorial (see below).

Finally, we have co-ordinated feature articles on Occupational Dermatitis, and in particular latex allergies, which will dominate this edition and stimulate the increasing interest in this Occupational Hazard.

The introduction to our Continuing Education Programme of Primary Health Care is welcomed.

Chris van Selm
Editor

The Mine Health and Safety Act - a comparison with the Occupational Health and Safety Act



The imminent promulgation of the new Mine Health and Safety Act (No 29 of 1996) is the culmination of a process initiated three years ago at a mining summit. The MHSA dedicated to the mining industry, was a recommendation of the Commission of Inquiry into Safety and Health in the South African Mining Industry (Leon Commission). Following a draft Bill produced by a select committee of experts, this draft was determined by a tripartite negotiating process which initially led inevitably to dispute and was hotly debated in the Portfolio Committee for Mineral and Energy Affairs in Cape Town.

The new Mine Health and Safety Act (MHSA) as gazetted on 14 June 1996 is compared to the familiar Occupational Health and Safety Act, No 85 of 1993 (OHSA). To highlight the differences could prove important when considering the co-ordinating role and function of the proposed National Occupational Health and Safety Advisory Council.

Scope of application

All mines are regulated by the new MHSA as well as certain works directly related or involved, which are included in the definition of a mine. The OHSA on the other hand regulates all other industries not considered to be mines, even though "grey" areas do exist between the two Acts with unregulated operations. The MHSA is administered by the Department of Mineral and Energy Affairs and the OHSA by the Department of Labour.

A spirit of tripartism

Tripartism is a key feature of the new MHSA, not only in the draft, but in the total functions of the Act. Equal representation of employers, employees and the state is required, with members nominated by all parties, on the Mine Health and Safety Council (MHSC) and its three permanent committees. Thus a true process of consultation between representatives is envisaged which is not equally reflected in OHSA where members of the Advisory Council for Occupational Health are appointed by the Minister (in accordance with the Act).

Responsibility for Health and Safety

In terms of the MHSA, the responsibility for health and safety rests with the Manager of a mine, whilst in terms of OHSA the employer or the Chief Executive Officer is responsible.

To page 4



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ADLINES

Editorial

From page 2

The MHSA puts certain obligations and duties on the owner of a mine but as these individuals are usually far removed from the mines (or the body corporate), the Manager of a mine is entrusted with the responsibility for health and safety of all persons as well as for any other person who may be affected by the activities of the mine.

Risk assessment

All mines must do a risk assessment, and this whole process is clearly spelled out in the MHSA: to identify, assess, prioritise, eliminate, control at source and minimise risks in this order where reasonably practicable. Only after all these measures, are determined as reasonably practical, may the manager resort to personal protective equipment. This risk assessment is a system requiring constant review and must be performed at all mines, and not just where there is "listed work" as in terms of OHSA.

Health hazards versus listed work

In term of OHSA certain types of work are controlled as "listed work" where these pose a specific risk to health. The MHSA, however, follows a two tier approach. Health hazards may be declared by the Minister and then supported by regulations which prohibit, restrict or control the performance of work where exposure to such hazard takes place. The requirements for medical surveillance, occupational hygiene measurements as well as the standards of fitness required may be prescribed by the Minister in relation to each such hazard.

Training, information and participation

Training of employees is more explicit in the MHSA and the Manager must ensure that employees are trained to conduct their specific job in a safe and healthy manner and be retrained when the requirements of the job change. The right to information as regarding health and safety and the active participation of employees are emphasised in the MHSA and extensively detailed.

Health and safety representatives and committees

The rights of health and safety representatives are prescribed in the MHSA with obligatory consultation between the Manager and the Health and Safety Committee on all issues related to health and safety at a mine. Full time health and safety representatives are a feature of the MHSA.

Investigation, inquiries and certificate of no prosecution

These are all more detailed and explicit in the MHSA with an additional feature of providing for witness protection from disciplinary action during an investigation. This is unique to the MHSA and protects an individual from prosecution in exchange for giving evidence that might be incriminating to himself. This provision aims to determine the exact and true cause of accidents with future prevention in mind rather than prosecuting the individual.

Emphasis on health

A medical inspector of mines must be appointed to enforce the Act by the Mine Health and Safety Inspectorate and headed by the Chief Inspector. In addition the Mining Occupational Health Advisory Committee (MOHAC) must advise the MHSC on all matters relating to occupational medicine and occupational hygiene. Where medical surveillance is required, the Manager must engage the services of a medical practitioner qualified in occupational health.

Right to refuse to do dangerous work

The MHSA endorses employees' right to withdraw and refuse to do dangerous work where there is reasonable justification to do so in accordance with the required procedures.

Record keeping and exit examinations

The MHSA prescribes that medical surveillance records may not be destroyed for 40 years and exit medical examinations must be done on every employee when employment is terminated while OHSA only provides for regulations to deal with record keeping. In addition owners must publish health and safety statistics in their annual reports and distribute these to shareholders where applicable.

Conclusion

Although the OHSA was used as a "starting point" for drafting the MHSA, the end result is two distinct Acts. The MHSA is an extensive Act with significant differences, and it is impossible to deal with all the smaller details as well as identify the requirements of regulations regarding health hazards.

Eventually the success of the MHSA will depend on the active participation and commitment of all stakeholders in the interests of health and safety.

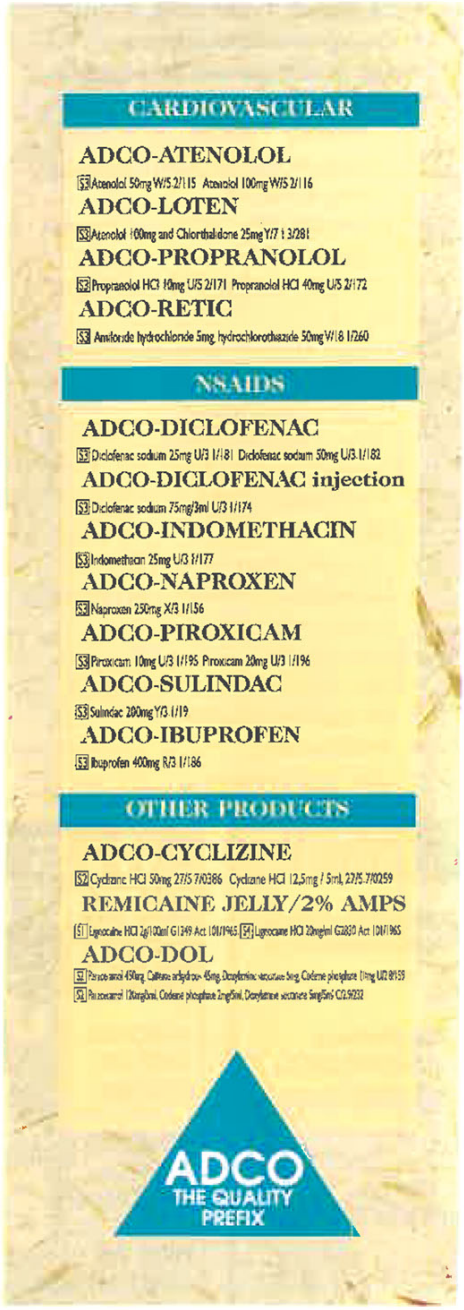
Dr MAC LeGrange

SASOM Seminar (Inland chapter)

Seminar: Ability and Disability in the Workplace
Date: 8 November 1996
Venue: Volkswagen Conference Centre, Midrand
Organiser: SASOM
Contact person:
Ms Dehlia Müller
PO Box 16179
Centurion
0140
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(012) 664-1648 ext 206

Guidelines now available

SASOM has recently updated their guidelines and these are available to SASOM members at a discounted price. They are also available to non-members. The 16 guidelines include the Medical Officer in Industry booklet, and they will be available in a white vinyl ringbinder with a photo of Bernardo Ramazzini ("The father of Occupational Medicine") on the front. The package will also include the basic principles certificate based on the code of ethics for occupational health prepared by the ICOH. This has been specially designed and printed to make it ideal for framing and display. The package will be available from the first week in September, but due to the anticipated demand we would suggest you phone our national office at once to place your order at tel: (012) 664-1648 ext 206 or (012) 664-1460



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SASOHN news

SASOHN is in the process of investigating both the Primary Health Care and Pharmacology courses that are available for Occupational Health Nurses, which have been accredited by the South African Nursing Council.

At the present there is no clear direction from either the South African Nursing Council or the Department of Health on the role and function of the primary health component of occupational health. Therefore SASOHN recommends that occupational health nurses delay any decision making regarding these courses until more clarity can be obtained, so as to avoid any disappointment in selecting an inappropriate course etc.

SASOHN will keep its members closely informed on the outcome of their investigations.

Occupational contact dermatitis (OCD) workshops

One day workshops will be held from 21 - 24 October 1996 in Cape Town, Port Elizabeth, Durban and Johannesburg. The funding comes from a WHO programme for the training of occupational health practitioners.

The objective of the workshop is to promote an awareness of OCD and guidelines on diagnosis. Dr Ian White from St John's Institute of Dermatology at the St Thomas Hospital in London and Mr Chris Packman, EnviroDerm Services, United Kingdom have been invited as guest speakers.

The workshops are aimed at occupational health nurses and doctors.

Further information from Ms Lea Roodt Tel: (011) 720-5734

"Occupational health Challenges for Africa"

PACOH '97 Pan African Conference on Occupational Health

The first announcement has been widely distributed throughout South Africa, Africa and internationally. Responses have been forthcoming and many persons have indicated an interest in presenting papers and posters. The following is a list of proposed topics for presentation. A very exciting and full programme is planned. SASOM and SASOHN will hold their annual general meetings during the conference.

Proposed topics

- Occupational disease surveillance
- Occupational injuries epidemiology
- Biological monitoring in Africa
- Occupational lung diseases
- Occupational health research
- Occupational health co-operation in Africa
- Occupational and environmental health in Africa
- Environmental and occupational hygiene in Africa
- Occupational health training in Africa
- Health and safety in agriculture
- Migratory labour and occupational health
- Infectious diseases in occupational health
- The female worker
- Child labour
- Compensation
- Occupational health and primary health care
- Ergonomics
- Social problems impacting on occupational health
- Shift workers
- The aged worker

The second announcement will be distributedshortly. Details on require-ments for abstracts will be given.

A trade exhibition will form an integral part of the conference and exhibitors will have an opportunity to advertise their products and services to a very wide market. This will be an ideal opportunity for companies wishing to expand their markets into Africa and elsewhere!

The cost of the conference will be R1000.00 per delegate. This does not include costs for the social functions i.e. the informal evening function and the formal banquet, nor the cost of lunches during the conference.

For more information please contact: Brenda Webster - Conference Co-ordinator, PO Box 35764, Menlo Park 0102

Tel/fax: 90120-467424

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Education
IHU develops and implements occupational health and safety **training programmes** for the various industrial sectors.

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Major health congress for Community Nurses

The National Society of Community Nurses biennial Health Congress will be held in George from 14 - 16 May 1997. The aim of the Society is to promote Community Health Nursing and the interest of the practitioners. The biennial conference contributes to the professional development of the members. Health professionals have an important role to play in establishing a workable health care system and have a vast influence on the communities they serve.

A total of 1 200 National Health Institutions, representing Southern Africa as well as all other African countries are being invited. It is expected that at least 600 delegates will attend. Top South African as well as international speakers will cover topics relevant to the new South African health system.

"Health Phoenix ", the theme for the congress, depicts the concept of a "one-stop" health service as described in the new Health Plan.

Further information from Alta Marais, PO Box 2134, George, 6530
Tel: (0441) 71-1995

SASOHN News



South African Society of Occupational Health Nurses organogram

Due to a publishing error Inland Natal was omitted from the South African Society of Occupational Health Nurses organogram published in the May/June issue of Occupational Health. We apologise for this omission.

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soos gelys by die SARV

22 Januarie - 25 Junie 1997

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STOP PRESS
Dispensing of medicines at workplace clinics may be stopped

There will be radical changes in the ways of dispensing medicines, as well as possible changes to employee health benefits in the future.

These were the messages members of the Department of Health conveyed to representatives of SASOM and SASOHN at a meeting held on 21 August 1996.

It is intended that changes to the Pharmacy Act, as well as the Medicines and Related Substances Control Act, will be promulgated in the coming months.

The rationale is that:
•doctors should doctor
•nurses should nurse
•pharmacists should dispense

One of the main reasons companies have on-site clinics is to render primary health care, especially for employees who are not members of a medical aid scheme. The Department of Health, however, envisages that all employees in formal employment would be covered by a mandatory health cover, possibly of a managed care type. On-site clinics would not be seen as providing adequate cover.

The only instances where clinics might be allowed to dispense medicines would be for:
•treatment of occupational diseases
•where no other facilities exist in the area

However, if implemented these changes could result in:
•Some companies closing their clinics, with a negative impact on employee occupational health.

Recent figures show that there are 1 074 registered clinics and that there are over 200 000 employers registered under the compensation commissioner. This would imply that a mere 0,5% of workplaces are serviced by a registered clinic. One is reminded of the Erasmus Commission report - "*Although industrialists in the Republic are aware of the workers position, it has regrettably to be stated that, except in the mining industry, industrial health not only occupies a secondary position in industry in this country, but that industrialists have put very little time, money and organisation into the prevention of occupational diseases*".

•Increases in sick absenteeism with impact on productivity, as employees do not have ready access to a clinic.

In view of theses implications, it is vital that the Department discuss these changes with business and unions, e.g. at Nediac. This would especially apply to the proposed health care benefits.

SASOHN and SASOM will continue to lobby for the retention of the "permit" or similar system

Dr Jim Murphy

Letters

Selecting biomonitoring action levels for occupationally exposed populations

The multi-author Original and Review Article by David Rees *et al*[1] is rather confusing if read in conjunction with the Regulations of Hazardous Chemical Substances, (Occupational Health and Safety Act of 1993), which contain guidelines for biomonitoring action levels applicable in South Africa.

These Regulations define Biological Exposure Indices (BEIs) as reference values intended as guidelines for the evaluation of health hazards, while in the same section (4.2.4) it is stated that if measurements persistently exceed the BEI or the majority of measurements in a particular group of workers do so, proper action must be taken. They thus should serve as statutory action levels for South Africa. However, in the section on "Development of action criteria "[4.4.1 (d)] a qualification is made in that it is stated there that "However, in many cases, the occupational health practitioners will have to develop pragmatic (sic) criteria in the context of the specific workplace".

In Table 3 of Annexure 1 there are 30 BEIs listed, to which of course those for Lead as contained in the Lead Regulations and for Hearing Loss in the relevant Regulation should be added.

The authors state *inter alia* that "industry" (whatever that denotes) recommended that standards which are *higher than* those recommended by recognised Occupational Health and Safety agencies should not qualify for selection and then go on to discuss, under 3., that it may be appropriate, in a few instances, to select a level *higher* than one recommended by statute or a recognised agency, or (when) *a recommended level may not exist*. Under no 4. they then state that the occupational medicine practitioner should not participate in applying or adopting levels exceeding a statutory or recognised level.

Confusion arises when they talk about "higher standards (which would presumably mean lower action levels) and then about selecting a level higher than recommended by statute, which would be an illegal act. No such problem would exist when no recommended level exists, which is highly unlikely when one considers the sources of information given by the authors.

Our legislator has charged the Occupational Medicine Practitioner, at his discretion, to develop pragmatic criteria (read action levels) in the context of a specific workplace. The ethics of the profession would dictate that such "pragmatic" levels would be determined (or "selected" to use the authors' phrase) with as its main aim to protect the employee against excessive adverse effects on her or his health, in line with the HCS Regulations! All this would only apply if no recommended levels for a biological monitoring test would be available and not by tampering irresponsibly with existing ones.

Lastly I would have thought that, rather than by peer review, any "selected level" should be subjected to an expert consultant's opinion. The most appropriate institution where such opinion should be sought is the National Centre of Occupational Health, rather than, with all due respect, a SASOM subcommittee.

References

1. Selecting biomonitoring action levels for occupationally exposed populations. David Rees, C Panter, M Felix, R Weiner, J Wilford. Occ Health SA 1996; 2:25

Dr JT Mets, MD

In response Dr Clifford Panter, co-author of the article "Selecting biomonitoring action levels for occupationally exposed populations", replies:

I welcome the constructive criticism and comments from Dr Mets on the recent article[1] of which I was a contributing author.

I agree with Dr Mets that the Hazardous Chemical Substances (HCS) Regulations[2] essentially establish the listed Biological Exposure Indices (Table 3 of Annexure) as statutory biomonitoring action levels for some chemicals; within a "framework of pragmatism" as determined by the context of specific workplaces.

It is this pragmatism which the article attempts to address through suggesting guidelines for comment.

The third sentence of Guideline 2 addresses the scenario of no statutory action levels and without the editing error should read "Industry recommended standards which are higher than those recommended by recognised occupational health and safety agencies should not qualify for selection". I agree that Guideline 3, which then goes on to detail how to select higher biomonitoring action levels, contradicts this assertion. The simple insertion of ", in most instances," before "qualify for selection" will resolve this contradiction.

"Industry" in Guideline 2 denotes one or more of the following: a company, a group of companies, an occupational sector, organised employers, etc.

The article does confuse and mix the use of the terms "standards" and "levels" in an unacceptable manner. In retrospect, I would edit the first sentence of Guideline 2 to read: "If no statutory biomonitoring action levels exist then a level recommended by a recognised occupational health and safety agency should be selected". Similarly, I would edit the third sentence of Guideline 2 to read: "Industry recommended biomonitoring action levels which

are higher than those recommended by recognised occupational health and safety agencies should not, in most instances, qualify for selection".

I do not agree that the selection of a biomonitoring action level higher than a level listed in Table 3 of Annexure 1 of the HCS Regulations is necessarily an illegal act. Section 4.4.1 (d) of Annexure 1 allows the occupational health practitioner to "develop pragmatic criteria in the context of a specific workplace". The selection of a higher level is not specifically legally excluded. Presumably the criteria of "best occupational health practice", "reasonableness" and "practicability" will be used to test this pragmatism. Currently, I think a "peer review mechanism" is more suited and better able than an "NCOH opinion" in assisting occupational health practitioners to develop action criteria.

References

1. *Rees D, Panter C, Felix M, Weiner R, Wilford J. Selecting biomonitoring action levels for occupationally exposed populations. Occ Health SA (1996) 2: 25*

2. *Occupational Health and Safety Act (Act 85 of 1993): Regulations for Hazardous Chemical Substances, Government Gazette, Vol 362, No 16596. 25 August 1995.*

Dr Clifford Panter

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Latex allergy - a major dilemma for health providers

P C Potter

Latex allergy has recently become a serious problem for health providers, health care workers and sensitized patients. The prevalence of allergy to latex has increased dramatically during the past 10 years, sensitization being present in 28 to 67% of children with spina bifida, 1% of the general population and between 10 and 24% of health care workers.[1] Health care workers who have underlying atopy are at greater risk for sensitization. In a recent review of latex allergy, Sussman reported that between 1988 and 1992, the FDA(USA) had received over a thousand reports of serious systemic reactions to latex of which 15 were fatal reactions.[2]

The worldwide increase in reported reactions is related particularly to increased use of poorly manufactured rubber gloves and condoms as a barrier against disease such as hepatitis and AIDS. Health care workers such as surgeons, dentists, scrub nurses and theatre staff have the greatest risk of serious sensitization which could result in their becoming unable to work. Sensitized patients and staff are also at risk for serious anaphylactic reactions should they subsequently undergo surgery in which latex gloves are used.

Sensitization to latex also has important lifestyle implications in view of the fact that latex or rubber containing products are widely used in the home and sporting environment.

Latex allergy is a serious problem in South African hospitals.[3,4] New cases are being identified with alarming frequency in our Allergy Clinics and demands for testing have increased.

In view of the size and implications of the problem of latex allergy worldwide, the rubber industry, under the auspices of the European Rubber Journal, convened an international conference at the Vrije University in Amsterdam, February 1996 on the subject. Health professionals, manufacturing and research scientists comprehensively addressed the topic: "Latex protein allergy: managing the issue". Evidence presented at this conference indicated that while further research was still required, practical measures which will reduce sensitization of staff and patients are now possible and should be introduced or enforced in medical institutions without delay.

Nature of the allergens

Latex allergy results from a Type I hypersensitivity reaction to proteins in natural rubber. Natural rubber is obtained from the milky sap of the rubber tree, *Hevia Brazilienzis*, largely cultivated in Malaysia. The thermoplastic qualities of latex are due to homogenous CIS-1, 4-polyisoprene particles. These particles are coated with many proteins of a range of molecular weights from 14kDa to 90kDa. These proteins induce IgE antibodies in susceptible subjects which result in clinical latex allergy. Important allergenic proteins include the rubber elongation factor, hevein, prohevein and hevamine. Repeated exposure to these proteins results in higher levels of sensitization. Thus children with spin bifida who have repeated surgical procedures readily become sensitized. It is interesting that adult health care workers tend to be sensitized to different latex proteins, compared with small children.

Although Type I latex allergy has only been recognized since 1979, contact dermatitis (Type IV) to accelerators such as thuirams and carbamates used in the vulcanizing process has been reported for over 50 years. This leads to the commercial marketing of so called "hypoallergenic gloves" for use by such individuals. It is important to note that these "hypoallergenic" gloves still contain latex and cannot be safely worn by latex sensitized health care workers.

Effects on health

Once patients are sensitized, repeated exposure to latex will lead to clinical disease. In some individuals there appears to

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be a latent period, but progression of the disease is very unpredictable and may be rapid, or even fatal in some individuals. The commonest presentation is contact urticaria, which spreads beyond the glove region and may be generalized. Rhinoconjunctivitis, angio oedema, asthma and anaphylaxis are important systemic manifestations of sensitization.

Once a patient is sensitized, removal from a latex contaminated environment is essential.

Sources of latex exposure

Latex containing products are ubiquitous in the hospital environment, at home and in the recreational environment. Depending on the manufacturing process, the final rubber products may release variable amounts of soluble latex proteins. In general, hard rubber products, e.g. car tyres or grips release less protein than surgical gloves, or fine catheters. Mucosal exposure is much more dangerous than exposure to the skin and 50% of the deaths reported in the USA followed insertion of rubber catheters following barium enemas.

(a) Gloves

For health care providers latex gloves are the most important source of exposure. The cheaper the glove generally the higher the free latex protein. Gloves require an intensive washing procedure in their manufacture to adequately remove the soluble latex proteins. This increases the cost of the glove but improves its safety. Powdered gloves are particularly hazardous, since latex proteins are carried in the corn starch powder. Once they become airborne they will be distributed in air conditioning systems, become inhaled and sensitize individuals who may not even be wearing gloves. Wearing a hand cream increases the content of latex transferred to the hands from the gloves and is not advised. After wearing latex gloves, hands should be washed to avoid subsequent contact with mucosal surfaces (eyes or mouth) and sensitization via that route.

(b) In the hospital

Important sources of exposure in the hospital include catheters, ostomy bags, latex cuffs, face masks, dental cofferdams, buretrols, drip sets, rubber stoppered vials, suction tubing, penrose drains, bed protectors, band aids, elastoplast, fleet enemas, oxygen masks, reflex hammers, disposable syringes, waterproof tapes, tourniquets and vascular stockings.

(c) At home

Non medical products containing latex include: balloons, balls, kitchen gloves, condoms, elastic hems, feeding nipples, foam rubber lining on splints and braces, pacifiers, teething rings, toys, racquet handles, rubber bands, water toys, scuba equipment and wheelchair cushions.

(d) Cross-reacting allergens

It has been shown that certain fruit and vegetables contain cross-reacting allergens, recently identified as "patatins". These include bananas, chestnuts, avocado, raw potato, tomato and kiwi fruit. Patients may be sensitized by eating these fruits and some latex sensitive patients have clinical symptoms, e.g. swelling or itching of the throat (oral allergy syndrome) when eating such fruit.

Approach to latex allergy

(a) Glove manufacturers

It is important to educate the rubber manufacturers regarding the seriousness of the current problem and the need to produce "safe" latex containing products, particularly gloves and condoms, which do not release free latex proteins into the environment.

This means that manufacturing processes need to be more stringent, quality control of gloves should be enforced and processes which leach out, remove or denature soluble latex proteins should be incorporated into glove manufacturing.

There needs to be external surveillance or a control body which reviews and checks that high standards are maintained. Standards should be set for the maximal releasable protein per gram glove permitted. This should certainly be less than 50mg protein/gram (Lowry). Allergenic extractable proteins identified by the LEAP assay should be less than 0.2mg/gram. The regular use of gloves which release low protein has been shown to markedly reduce the risk of latex protein allergy.

(b) Education of hospital purchasers

Unless personnel in purchasing departments and tendering departments of hospitals are educated about the importance and consequences of acquired latex allergy they will be tempted to purchase cheaper and more dangerous gloves. Latex gloves which are both powder free and have low extractable proteins should be preferentially purchased. Hospital purchases should also make provision for non-latex glove alternatives for staff, who are already sensitized. These gloves are currently more expensive but must be available.

(c) Identification of high risk staff and patients

Health care workers, particularly atopic theatre staff, laboratory workers, dentists and patients undergoing repeated surgical procedures and those with idiopathic anaphylaxis should be identified. Patients who report oral itching following avocado, bananas, tomatoes or after blowing up balloons should be investigated.

(d) Screening for sensitization

High risk individuals should be screened for sensitization. The CAP RAST test is between 60-80% sensitive and can be performed at no risk to the patient. Skin prick testing can be dangerous and should only be performed in specialized units. Skin prick testing is more sensitive than RAST's but *in vivo* latex testing reagents are not standardized or easily available worldwide. A "use" test, in which the patient wears a finger of the suspect glove for 15 minutes to 1 hour has been advocated, but may have variable sensitivity depending on the brand and batch number of the particular glove. Patients who only have localized contact dermatitis should be tested using patch tests with thuirams, phenylene diamine, carbamates or mercaptomix. Patch testing does not carry the same risk as prick testing but should be performed by an expert in the technique.

Management of staff with confirmed latex allergy

Complete removal from further exposure to latex products is absolutely essential.

Latex free gloves should be worn by the affected individuals. These include neoprene, styrene-butadiene or vinyl gloves. All other individuals in the theatre concerned should use only non-powdered, low extractable latex gloves.

Examples of latex-free gloves include Baxter vinyl, Dahlhausen vinyl glove, Tactylon (Smart Practice, Phoenix),[5] Regent Biogel Neotech glove (Neoprene), Ansell dermaprene and Becton Dickinson Neoprene glove.

Examples of powder free gloves which contain low extractable proteins include Regent Biogel D (available in South Africa), Supertex and Neutraderm. Ansell Medigrip and sensiderm gloves have low extractable latex proteins, but are still powdered.

In addition to the use of an appropriate non-latex glove by affected individuals and non-powdered gloves by other staff, all contact with latex containing appliances in the hospital and the home environment (see list above) must be strictly avoided.

Prevention of exposure in hospital is a major exercise for health providers. "Latex free theatres" are being introduced in the USA in which patients (or staff members) who are sensitized to latex can be safely operated on. An American Academy of Allergy task force has published guidelines on the medical approach to latex allergy.[6]

Planning for the future

Since awareness of latex protein allergy has increased in recent years, research into the development of alternative gloves has accelerated. Development has focussed on chloroprene, neoprene and styrenic block polymers. Different synthetic glove materials vary in their strength, elasticity, softness, tear strength and cost. It is technically difficult to make synthetic gloves which have all of the qualities of natural latex which is soft, elastic and very forgiving. A synthetic polyurethane male condom has been made by the London International Group, known as Duron® and used in the manufacture of Avanti® condoms, marketed in the USA.

New techniques are being developed to take the "agents of irritation" out of rubber. This can be done by extensive washing, chlorination, deproteinization using proteases, or by using silica to bind the proteins (e.g. Cab-o-sperse) in the manufacturing process.

For the present, simply discontinuing the use of powdered gloves in theatres will mark-edly reduce the rate of sensitization, as has been recently demonstrated at the Mayo Clinic.

Public health implications of latex allergy

Public health implications of acquired latex allergy are enormous. These start with the development of a hospital policy and the education of staff, patients, hospital purchasers and planners. High risk patients must be screened and removed from further latex exposure. This requires the provision of a skilled laboratory and clinical diagnostic service. It is important to provide an individual risk assessment for sensitized or clearly allergic patients/staff.

Latex free alternatives (e.g. gloves) and in some cases entire theatres may have to be provided. Manufacturers need to be prepared to adequately label their appliances since even incidental exposure by affected individuals can be quite severe. The patient needs to be made aware of latex exposure in the non-medical environment.

It has been proposed by the US FDA that the term "hypoallergenic gloves" be avoided until it is properly defined, since available

hypoallergenic gloves invariably contain latex.

Latex allergic individuals require a supply of sterile non latex gloves and should take them with them when travelling, in case of an emergency. They should wear a medic alert disc and have self injectable adrenaline and anti histamines on their person to use in the event of inadvertent exposure.

The costs of latex allergy

The calculation of the cost of allergy to latex includes the cost of screening, diagnosing and treating the allergy, the provision of latex free substitutes in the hospital and home environment, the medical costs of acquired allergy, the costs of litigation and the cost of vocational rehabilitation. Individuals affected are also eligible for workers compensation. In South Africa health care workers have already required medical boarding due to latex allergy and cases have been submitted for workers compensation.[3]

Employers are morally and legally obligated to their workers. Compensation for acquired latex allergy is already advanced in countries such as Canada and Finland. Paul Keith (McMaster University, Canada) reported in February 1996 at the International Conference on Latex Protein Allergy in Amsterdam that the Ontario Workers Compensation Board allowed 60 latex rubber related claims in 1993. Twenty-five were from health care facilities and eight had occupational asthma. Based on the size of the facility the employer could be accountable for up to 90% of the cost (average cost $194.000). In a preliminary survey at Groote Schuur Hospital in 1994, 23 cases of latex allergy were diagnosed of which two had anaphylaxis[4] and eight had asthma. Several more cases have been diagnosed since 1994.

It is essential that health care providers are made aware of the causes and implications of this important "new" allergy so that appropriate intervention and preventative measures can be introduced in the future.

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Latex Glove Allergies

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Latex glove allergies

There are two important misunderstandings about allergies which should be resolved before any treatment is attempted.

1. Not all skin reactions are allergies.
   The large majority of skin reactions among health care workers are not allergies but irritant responses.
2. Allergies are not trivial.
   They are serious irreversible conditions which are at best uncomfortable and can restrict working practices. At worst they can be life threatening.

Allergies attributed to latex gloves fall into two categories:

Type 1- These are a response to natural impurities in the latex called extractable latex proteins.

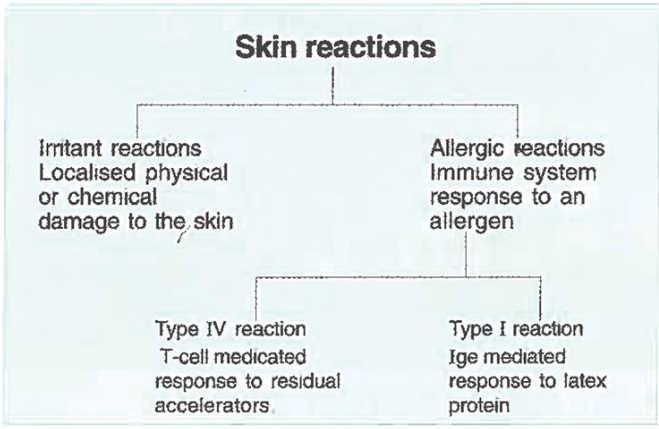
Type IV - These allergies are a response to chemical additives in the latex called natural rubber accelerators. Extractable latex proteins, responsible for Type I reactions in sensitised individuals, are present in all natural rubber products. The amount of protein varies considerably depending on how rigorously the products are washed during manufacture. Once sensitised to latex proteins, any natural rubber product may lead to a hypersensitive reaction. With each subsequent exposure the risk of anaphylaxis increases. Residual accelerators are present in all natural and most synthetic rubber products. They too vary in amount as a consequence of the manufacturing process. Different products use different types of accelerators and sensitisation is specific. Thiurams are a group of accelerators which frequently cause Type IV allergic reactions.



Anaphylactic face



Irritant reaction



Glove powder

The most common misunderstanding about latex glove allergy is that it is a result of glove powder. This is technically wrong, as glove powder does not cause an immune system response in this context. However it is implicated in latex glove allergies in two large ways:

- Airborne allergens. Glove powder has been shown to bind the latex proteins and then become airborne.
  This can lead to asthma, rhinitis and conjunctivitis.
- Irritation. Although not an allergen, glove powder is a skin irritant. This can both allow easier skin absorption of allergens and aggravate allergic skin conditions.

Avoidance and management

To avoid the consequences of allergy to both employee and employer, it is necessary to have a considered and appropriate strategy for both the avoidance and management of latex allergies.

Step 1 - The recognition and diagnosis of those who are already sensitised, based on a diagnosis and not an assumption that a skin reaction is an allergy.

Step 2 - Implementation of a management strategy for those already sensitized - avoidance of the allergen involved.

Step 3 - Avoidance strategy for those not yet sensitised.

The identification of atopic individuals who are predisposed to develop a Type 1 allergy. These individuals should keep exposure to latex proteins to a minimum. For non atopic individuals who wear gloves, the degree of exposure to latex will determine their risk of sensitisation, although this is greatly reduced if powder free gloves which are low in allergens are used.

Hypoallergenic is a misused and misunderstood term. Its correct meaning is "less allergenic". It does not mean "non-allergenic" or "suitable for sensitised individuals".

Some manufacturers claim their gloves are "hypoallergenic", but certain questions still require answers to determine their safety in this respect.

1. What is the level of extractable latex proteins (Type I allergens) in the glove? The units should be expressed in micrograms per gram.
2. What is the level of residual accelerators (Type IV allergens) in the glove? The units are % (W/W)
3. Are they completely powder free?

What is a safe allergen level?

For occasional, short term wearers
- Residual accelerators level 0.5%
- Extractable latex protein level 100 micrograms/gram.

For frequent, long term wearers e.g. operating theatre personnel
- Residual accelerator level 0.1%
- Extractable latex protein level 1 microgram/gram.

Common foods which show cross-reactivity to latex protein

Proteins found in certain foods show similar immune system reactivity to latex proteins. For those people who react to these foods, there is a possibility that they will also react to latex proteins.

- Banana
- Avocado
- Kiwi fruit
- Chestnut
- Potato
- Tomato
- Mango

Sources of latex exposure:

- Anaesthetic apparatus
- Baby nipples
- Balloons
- Bandages
- Belts
- Brassieres
- Buretrols
- Cardiac catheters
- Carpet backing
- Chewing gum
- Clothing
- Condoms
- Corsets
- Dental cofferdams
- Drip sets
- Erasers
- Examination gloves
- Face masks
- Foam pillows
- Garden hoses
- Gloves
- Golf grips
- Headsets
- Injection vials
- Latex cuffs
- Milking machines
- Ostomy bags
- Paint
- Pacifers
- Rubber bands
- Rubber cement
- Shoewear
- Suspenders
- Surgical gloves
- Syringes
- Tennis grips
- Teething rings

Summary

Allergic reactions to latex gloves are now being recognised as a serious problem amongst health care workers.
The problem has been exacerbated by widespread ignorance of the subject amongst sufferers and managers.
It is important that the subject should become widely recognised and understood at all levels.
This task is often left to the occupational health services, so it is necessary for all the relevant information to be readily available. Latex glove allergy is a serious and irreversible occupationally acquired disease which requires a management and avoidance strategy.

Differences between irritations and allergies to gloves

Symptoms	Irritation	Type I Allergy	Type IV Allergy
Boundaries of the reaction	Definite boundary, often coinciding with boundary of irritant e.g. cuff of glove	Undefined. May be under glove or over whole body	Undefined. May be under glove or spread up the arm
Tendency to spread	No. Reaction limited to glove contact area	Yes. May spread beyond contact area	Yes. May spread beyond glove contact area
Respiratory involvement	None	May involve wheezing, runny nose, breathing difficulties	None
Systemic involvement	None	Nausea, abdominal cramps, rapid heart rate, hives, dyspnea, hypotension, shock	None
Facial involvement	Possible only by facial contact with glove	Swelling of eyelids, lips, face, tearing, itchy eyes	None
How acquired	Skin contact	Skin, mucous memnrane or open wound contact, injection, aspiration.	Skin contact

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Occupational dermatitis in mine workers referred to a private dermatological practice

HA Carman,

Definition

Occupational dermatitis is a skin condition due wholly or partially to the patient's occupation: occupational exposure should be a major factor.[1] The narrower definition used to define occupational dermatitis is dermatitis "primarily caused by components of the work environment",[2] or "a skin disease which would not have occurred if the patient had not been doing the work of that occupation".[3]

In practice it is very often difficult to prove the connection between the dermatitis and occupational exposure. This is especially so because there are many different causes and patterns of presentation of non-occupational dermatitis.

Dermatitis is divided into endogenous and exogenous dermatitis depending on the causation. Examples of endogenous dermatitis are atopic eczema, seborrhoeic dermatitis, varicose eczema and nummular eczema. Examples of exogenous dermatitis are contact dermatitis caused either by true allergic sensitization or by irritant materials in contact with the skin, and asteatotic or dry skin eczema. The terms dermatitis and eczema are interchangeable.

The following factors are taken into account when deciding whether dermatitis can be attributed to occupational exposure[4]:-

- There should be a correct time relationship i.e. the occupational exposure should precede the development of the dermatitis.
- On history, there should be a relationship to working and time off. The eczema should clear over weekends away from work or during prolonged holidays.
- The agents with which the person works should be known to cause changes consistent with his skin changes.
- The type and site of lesions should be consistent with the type of exposure, and similar to other cases described.
- Should other fellow workers be affected within the same work environment, this is supporting evidence that the problem is occupational.
- Patch tests should be done using the standard patch test series as well as substances in the work environment. Should these show positivity the diagnosis of a true allergic contact dermatitis is confirmed. Testing for irritation is problematic.

A minority of workers in a particular field develop dermatitis. Presumably then there is a constitutional predisposition to develop the problem, and these factors are largely unidentified.

However, it is known that the pre-existence of atopic dermatitis and seborrhoeic dermatitis puts workers at risk of developing occupational dermatitis.

Non-occupational factors playing a role might be allergy or irritation caused by medications, and activities in the home resulting in constant re-exposure to irritants and allergens. Stress may play a role but its role in the provocation and perpetuation of dermatitis is not defined.

Incidence of occupational dermatitis

Of all occupational disease, dermatoses comprise between 20 - 70% in different countries. Of the dermatoses, 20 - 90% are contact dermatoses. The relative proportions will vary depending on the extent and type of industrialization in an area and certainly by the skill and involvement of dermatologists .[5]

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Occupational Health SA
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Irritants versus sensitizers

Contact dermatitis is divided into irritant and true allergic dermatitis. It may be impossible to distinguish between them and irritant dermatitis may predispose to the development of true allergy through damage to the protecting horny layer of the skin and subsequent penetration by potential allergens.

Irritation is brought about by removal of the lipids of the superficial keratin and subsequent damage to the barrier function of the skin. Degreasing agents such as detergents, soluble oils, alkalis in soaps and the lime of cement may be responsible.[6] Water and its additives such as salts and oxides of calcium, magnesium and iron will cause irritation as in "wet work". Examples of airborne irritants are dusts such as cement and chalk, fibreglass, metallic oxide powders, calcium silicate, phenol vapours, phenol and formaldehyde resins.[7]

Clinical features are dryness and chapping of the skin in the early stages as well as scaling and erythema. If more acute there may be vesiculation, erosions and pustulation. More severe acute irritation caused by strong acids or alkalis may result in a chemical burn.[6]

True sensitization results in delayed hypersensitivity and allergic contact dermatitis. This is mediated by the type IV cellular immune pathway. During this process the allergen penetrates the skin and is bound to the Class II molecule on the surface of the dendritic Langerhans cells. These Langerhans cells travel to the lymph nodes where they settle in the paracortical T cell areas.[8]

Here the allergen - Class II molecule complex is recognized by specific T cells which bind to the complex and become activated. Interleukin I is secreted by the Langerhans cells and activates T cells to produce Interleukin 2 (IL2). Interleukin 2 stimulates the T cells to proliferate. These activated T cells are then released into the circulation and penetrate peripheral tissues including the skin.

These cells then mediate the inflammatory responses in the skin that manifest clinically as the eczematous or dermatitic reaction. It reaches its maximum 18 - 48 hours after re-exposure to the allergen that caused the primary sensitization.

Common sensitizers are nickel in jewellery and metallic objects, chromate and cobalt in cement, epoxy resin and the amine hardeners, rubber chemicals, fragrances and biocides in metal working soluble and cutting oils, as well as dust from hardwoods such as imbuia.

The scientific way in which true allergy is established is via patch testing. Both the National Centre of Occupational Health (NCOH) and most dermatologists in South Africa use the "European standard patch test series". This comprises 23 agents, six of which are mixes, so that in fact an additional 24 allergens (a total of 47 allergens) are actually applied. These are inserted into the aluminium discs of the Finn chambers and applied to the back by means of micropore plaster. These allergens have been shown to commonly cause contact dermatitis but in an industrial setting a careful history needs to be taken and a search made for other potentially allergenic substances.

The patch tests are left on the back for 48 hours and then removed. The tests are read, and the patient should return after a further 48 hours in case a late reaction has occurred. In practice a single reading after three days (one day after removal of the patch tests) is convenient.

The recording of the patch tests is as follows:[9]

+	doubtful - faint erythema only
+ +	weak positive - erythema, infiltration, papules
+ + +	strong positive - erythema, papules, vesicles
+ + + +	extreme strong positive - intense erythema, infiltration and coalescing vesicles.
IR	irritant reaction - this varies from fine wrinkling to erythema, papules, bullae and necrosis. The lesions burn rather than itch and typically are confined to the area of application.

The author's experience of occupational dermatitis derives firstly from being a Mines Benefit Scheme (MBS) panel dermatologist. In addition black workers with dermatitis attend the Dermatology Clinic at the Boksburg Benoni Hospital and Occupational Health nurses as well as general practitioners have referred employees with dermatitis to the limited private practice of the author on the East Rand.

Over a period of 20 months, 211 white miners over the age of 19 years were referred to her in her capacity as an MBS panel doctor.

Results

Dermatitis was diagnosed in 63 patients (30%).

The age range was 20 - 64 years.

The average age was 41 years.

The median age was 41 years.

Of these 12 were thought on clinical grounds to be work related and were investigated as such.

The 63 who were diagnosed as dermatitis were further classified as follows:

	No	%
Tinea corporis or pedis, proven positive on culture	4	7
Atopic dermatitis	9	14
Infected eczema	4	7
Non-specific dermatitis - no clear attributable cause or pattern of distribution. Two had severe exfoliative dermatitis	14	22
Seborrhoeic dermatitis	2	3
Folliculitis	2	3
Prurigo/chronic eczema	2	3
Asteatotic eczema	4	7
Nummular eczema	6	10
Varicose eczema	2	3
Pomphylyx	1	1
Occupationally related	12	19
Contact dermatitis (to a mango plant at home)	1	1
	63	**100**

Fifteen of the 63 workers were investigated for fungal infection by microscopy and culture of scrapings. Four were positive.

Of the 12 miners who were diagnosed as work related dermatitis all had worked underground and related their dermatitis to their work environment.

In 10 cases they had developed dermatitis for the first time after starting to work underground, and they improved when they went on leave. Five stated that they improved over weekends away from work. All wore rubber boots. Two had changed to leather boots but thought they made no difference.

Seven men attributed their problem to the underground heat, as well as the boots, the water, the dust and the grime, all of which penetrated the boots such that their legs and feet were wet for the duration of their shift. Four men were also in contact with solvents and oils. One man was in contact with soda ash, as well as oils, and one worked in a salvage yard after having been removed from working underground. Here he worked with rusts, cement dust, blasting dust and stone dusts.



Hand dermatitis due to soluble oil in a metal worker

On examination 10 of the 12 showed involvement of the hands and feet. The other two had eczema on the lower legs which in one was attributed to allergy to rubber boots. The second had varicose eczema of his lower legs dating from a tibial fracture sustained at work and a secondary deep vein thrombosis.

Of the 12 workers, 10 were sent to the NCOH where patch tests were performed by Dr. Lea Roodt. The European standard patch test series was applied and read after two days, and again after four days.

Six patients showed positive results and four were negative. Two patients reacted to only one allergen, whereas four patients reacted to more than one allergen.

The patients reacted to the allergens in the European patch test series as follows:

Patient 1:

a) Mercaptobenzothiazole (MBT) - this is found in rubber where it is used in an accelerator before vulcanisation. MBT is also found in cutting oils, greases, coolants and adhesives.

b) Paraben - found as a preservative in cosmetics and medicaments.

c) P-tertiary Butylphenol Formaldehyde resin - this is a contact adhesive and may be found in boots.

This patient was probably allergic to his boots.

Patient 2:

a) MBT - see above

b) Epoxy resins - these are used as adhesives, in paints, in electrical insulation and as an additive to cement.

This patient was in contact with solvents and oils underground.

Patient 3:

a) Balsam of Peru - this is a natural resinous balsam from the trunk of a Central American tree. It is contained in perfumes and flavourings.

b) Fragrance mix.

This worker was in contact with hydraulic oils. His source of contact may have been soap or fragrances incorporated in the oils.

Patient 4:

a) Colophony (rosin) - this is widespread and found in numerous compounds including cutting fluids, adhesives, insulating tapes, and tall oil in cutting oils.

This worker was exposed to turpentine, oils, turbine oils, as well as soda ash.

Patient 5:

a) Colophony - as above

b) Potassium dichromate - this is the commonest sensitizer in cement, and is also used to tan leather. It is included in anti-rust paint, in match heads and in numerous other substances.

This patient worked in a salvage yard and was exposed to various substances including cement and blasting dusts.

Patient 6:

a) Cobalt - this usually accompanies an allergy to nickel and chromate.

In this patient the source of contact was not clear and irritant factors seemed to play a role.

Thus, six patients of the 12 who were thought to have occupationally related dermatitis were shown to be truly allergic to allergens probably found in the work environment.

The other six were diagnosed as having primarily irritant dermatitis due to irritating factors in the underground environment.



Positive patch test after removal of the European standard patch test series

Conclusions

It seems that dermatitis is common amongst underground mine workers. Nineteen per cent of the 63 patients were diagnosed with dermatitis as being clearly occupationally related, but used a narrow definition of the term "occupational dermatitis". Workers gave a clear history that the dermatitis improved away from work and relapsed on return to work, that the dermatitis started after they became miners, and that their hands and feet were affected; these being the most likely parts of the body to be exposed to irritating and allergenic substances.



Infected eczema of the foot, cause not established

However, 22% of the 63 patients were diagnosed as having non-specific dermatitis and 14% atopic dermatitis. A further 20% were diagnosed as having asteatotic, nummular or chronic eczema. The underground working environment was highly likely to be playing an aggravating if not precipitating role in these patients as well (56% of 63).

Only 4 of the 63 were shown to have Tinea pedis or corporis. This may be because workers with fungal infections were successfully treated by the GPs and only those who failed to respond were referred to the dermatologist.

Dermatitis tends to be chronic and relapsing, and may persist for years after the patient has been removed from the agents and the environment that caused the dermatitis in the first place.

Unfortunately the nature of the contract between Mines panel dermatologists and the MBS does not allow for adequate follow-up. However, several of the author's patients had persistent unremitting eczema and two had severe erythrodermia years after retirement on the grounds of ill-health due to dermatitis.

Thus in summary dermatitis seems to be a large problem amongst South African mine workers. A minority is diagnosed as occupational dermatitis, but more careful history-taking, follow-up over a period of time and further investigations such as patch testing may well result in many more workers with dermatitis being labelled "occupational".

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Managing employee incapacity in terms of the new Labour Relations Act and related legislation (part 2)

*Peter Strasheim**
in consultation with
Andre Botha#

The LRA's Code of Good Practice: Dismissal

Introduction

The Act makes provision for NEDLAC (the National Economic Development and Labour Council) to prepare and issue Codes of Good Practice[36] which must be published in the Government Gazette.[37] The first such Code issued under the Act was published in Gazette No 16861 (Volume 366) on 13 December 1995, and appeared as Schedule 8 to the Labour Relations Act No 66 of 1995, with the title 'Code of Good Practice: Dismissal'.

Objectives and principles of the Code

The Code of Good Practice: Dismissal (CGP) covers key general aspects of dismissal for conduct and capacity,[38] and gives guidance and norms for procedurally and substantively fair management of these matters by employers. The Code's content is based broadly upon principles established through industrial relations practices and labour law decisions of the various Industrial Courts. The Code recognises that circumstances may justify a departure from its norms,[38] and does not substitute for negotiated agreements concluded between employers and organised labour, such as Disciplinary and Grievance procedural agreements.[38]

The CGP's "key principle" is that "employers and employees should treat one another with mutual respect. A premium is placed on both employment justice and the efficient operation of business. While employees should be protected from arbitrary action, employers are entitled to satisfactory conduct and work performance from their employees".[39]

Incapacity, unfair dismissal theory and the CGP

The CGP's good practice broadly summarises or codifies the labour law 'theory of dismissal', which sets out the theoretical grounds for unilateral termination of an employee's services. The CGP's principles and procedures for addressing and managing employee incapacity developed from the theory. In summary, termination is classified in terms of "cause", also regarded as "fault".

Termination caused by employee fault may either be due to misconduct (which results in dismissal) or poor work performance (which results in cancellation/termination of the contract of service). Termination caused by the employer without employee fault may either be due to operational requirements of the employer (which results in either redundancy or retrenchment) or due to incapacity as a result of ill-health or injury (which results in cancellation/termination of the contract of service).

The CGP prescribes that any dismissal will be regarded as unfair if it was not effected for a fair reason and was not in accordance with a fair procedure. The fairness of the reason for dismissal is determined by the facts and the appropriateness of dismissal as a penalty.[40] The CGP recognises three grounds on which termination might be legitimate: conduct of the employee, the capacity of the employee and the operational requirements of the employer's business.[41]

Note that the Act specifies that any person interpreting or applying the Act must take into account any relevant Code of Good Practice.[42] The Act also emphasises the Code by providing that any person considering whether or not the reason for dismissal is a fair reason or whether or not the dismissal

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was effected in accordance with a fair procedure, must take into account any relevant code of good practice issued in terms of the Act.[43]

CGP guidelines for addressing incapacity due to ill-health or injury

Distinguishing between temporary and permanent incapacity

The CGP recognises and makes the central and fundamental distinction between incapacity which is temporary and incapacity which is permanent[44] and prescribes very different approaches to address and manage the incapacity in terms of fair labour practices in each instance.

In terms of medical examination and assessment, correctly and timeously distinguishing between temporary and permanent incapacity will be critical to the subsequent approach line managers are required to adopt to address or accommodate the incapacity.

Employers may regard CGP's incapacity procedures and requirements as a process requiring supervision and management, for which an OHMP may be perceived as responsible and accountable. Line managers would however normally be responsible and accountable for addressing and managing incapacity within their own staff, using the support, guidance and advice of the OHMP functioning as consultant to line for the purpose.

Incapacity, the CGP and COS benefits: roles for OHMPs/OHNSs

It is important to note that the CGP lays down general guidelines, and cannot address the complexities of the rights an incapacitated employee may have to an employer's COS benefits. This area can become extremely complex from an industrial relations and human resources angle.

Medical roleplayers, particularly OHMPs will need to function in close co-operation with HR and IR personnel, and receive continuous guidance and hands-on support. These processes should be fair and equitable to both the employer and employee. OHMPs would be advised to secure all relevant information, sensitization and training in these areas from an employer's functionally responsible personnel. Communication to employees about the range of options, their rights and entitlements and the effects and consequences of any option selected are fundamental principles.

The complexities involved indicate that medical roleplayers, particularly OHMPs and employed nursing staff (OHNSs) restrict advice to medical matters. It is recommended that HR personnel are used to communicate, advise and negotiate options and choices in their capacity as consultants to line management, and also alert employees as to the personal and financial consequences of options available. Similarly, IR personnel are best placed to advise employees and line managers on incapacity-related IR issues like termination, redundancy, disciplinary matters, unacceptable absence, refusals to work, chronic intermittent sick leave and poor performance.

Capacity-focused investigation

It is frequently impossible to conclusively determine the permanence or otherwise of numerous incapacity problems, or of the medical condition apparently causing them. There may be many appropriate interventions which might resolve, assist, improve or rectify the incapacity or its apparent medical cause: medical, therapeutic, personal action, occupational, managerial, rehabilitative or motivational interventions may or may not be applicable, fair or reasonable. The circumstances should determine the applicability and feasibility of the alternatives, relative to the medical factors, the LRA, CGP and constitutional fairness provisions.

CGP guidelines for addressing temporary incapacity

The CGP prescribes that "if an employee is temporarily unable to work in these circumstances, the employer should investigate the extent of the incapacity or the injury. If the employee is likely to be absent for a time that is unreasonably long in the circumstances, the employer should investigate all the possible alternatives short of dismissal. When alternatives are considered, relevant factors might include the nature of the job, the period of absence, the seriousness of the illness or injury, and the possibility of securing a temporary replacement for the ill or injured employee".[44]

These provisions need to be interpreted in order to apply them fairly under the employer's COS as well as past precedents established at the workplace. This is necessary because procedural fairness and consistency of treatment are key elements of labour law fairness. There are in brief summary three key issues to be interpreted by the OHMP/OHNS in consultation with HR and IR:

- *"Reasonable and unreasonably long (temporary) absence"*

"Reasonable absence" is likely to mean absence not more than the maximum sick leave grantable to temporarily incapacitated

employees in terms of COS, or precedents established by past instances.

"Unreasonably long (temporary) absence" is likely to be interpreted as absence extended beyond the permissible maximum. This is often addressed by some employer's COS provisions on PHI/IHR extended sick leave or unpaid leave, where approved. The OHMP/OHNS would normally have the professional discretion, based on the facts and in "the circumstances" to approve or recommend any of these. Potential for disagreements with line managers may result where the employer or a line manager's budget carries the costs of the benefit recommended by the OHMP/OHNS. Possible relationship difficulties can normally be addressed by instituting discussions for "investigating all the possible alternatives short of dismissal" as required by the CGP, which is discussed below.

- *"Investigate all the possible alternatives short of dismissal"*

This investigation involves ongoing round table discussions with all parties, to examine the medical problem and identifying practicable, appropriate methods to accommodate it in the workplace. The investigation processes and its outcome should be fully transparent, participative and fair to both employer and employee. Medical and occupational health guidance and the advice of the OHMP/OHNS are essential to the fairness of the process and its result. Labour relations equity, non-discrimination and non-victimisation in the process or in its outcome should be promoted throughout.

Decisions cannot be made without all the medical and incapacity factors being considered, with a full evaluation of the workplace. An Occupational Therapy assessment of the old and proposed new restructured post would be indispensable. Key participants are the employee's representative, as well as the former and envisaged new line managers, fully appraised of the situation and giving inputs and agreeing to the alternatives presented.

OHMP/OHNS will require a combination of objectivity, dialogue, negotiation, persuasion, positive professional profile coupled to a sound knowledge of the LRA's Code of Good Practice on addressing workplace incapacity. The support of HR and IR personnel in addition to that of the existing legislation itself, would be an added advantage.

- *Types of possible alternatives*

Alternatives will depend on a multitude of relevant factors. The CGP cites "the nature of the job, the period of absence, the seriousness of the illness or injury and the possibility of securing a temporary replacement for the ill or injured employee".

Further guidance on relevant factors is from the decided Industrial Court cases on incapacity, which clearly indicate the course an employer would be expected to follow, and the circumstances in which incapacity-based termination of service might be fair and non-discriminatory. Length limitations prevent detailed analysis and discussion of the cases and their guidelines here. OHMPs/OHNSs could become sensitized to the case law principles by training from their IR function or by analysing them carefully. Occupational Therapists and medico-legal assessors may also find the labour law context of incapacity management rewarding.

Examples of a range of incapacity management alternatives which could be used in temporary as well as permanent incapacity are given in a subsequent section.

CGP guidelines for addressing permanent incapacity

The CGP prescribes that "in cases of permanent incapacity, the employer should ascertain the possibility of securing alterna-tive employment, or adapting the duties or work circumstances of the employee to accommodate the employee's disability".[44]

These provisions contemplate permanent incapacity for the post the impaired employee occupied. There are two key aspects which an OHMP/OHNS would need to interpret with HR and IR to promote compliance with the Code of Good Practice's guidelines:

- *"Securing alternative employment"*

This phrase may be interpreted in various ways, and guidance from the case law is recommended. One example may be whether the alternative employment should be secured (and is intended to mean) within the same organization, or external to it. Circumstances, case law, fairness, the CGP and non-discrimination should guide interpretation. This is likely to become a subject for consultation or joint decision-making at workplace forums.

It is submitted that the CGP envisages alternative employment within the organization/employer, where possible. This accords with incapacity case law, and CGP good practice goals of fairness, non-discrimination with disability/injury accommodation in employment. The alternative view would be to propose a good labour practice-based duty on

the employer, after terminating service for incapacity, to secure alternative external employment.

The size, diversification, locations and posts/occupations available within the organization should give substance to the phrase. Whether subsidiaries, depots or branches exist, and the nature of their business, will also influence the position.

Where alternative internal employment is available, incapacity management alternatives like the examples in the table below could be agreed in participtive discussions to assist the affected employee to perform in the new post.

Where alternative internal employment is not possible, fair termination would arise. Available insured or ill health pension/ retirement fund benefits under the COS would be applied for or recommended with the advice of HR and IR.

Medical roleplayers may request training from HR on benefits available, eligibility, structure, criteria and procedures for applying. Workplace forums are likely to focus upon these and other benefits as employee participation in disability, workplace rights and disability legislation is refocused by Government's Integrated Strategy and Employment Equity legislation.

- *"Adapting duties/work circumstances to accommodate disability"*

See Table I (below) for examples of the alternatives which may be available to accommodate permanent workplace incapacity.

Employee rights at investigations

During the process of investigation in temporary and permanent incapacity/injury, the CGP prescribes that the employee should be allowed the opportunity to state a case in response and to be assisted by a trade union representative or fellow employee.[45]

Degree and cause of incapacity; counselling/rehabilitation

The CGP records that "the degree of incapacity is relevant to the fairness of any dismissal"[46] and that "the cause of the incapacity may also be relevant".[46] The cause of the incapacity is a key element in work-related injuries: the CGP provides that "particular consideration should be given to employees who are injured at work or who are incapacitated by work-related illness. The Courts have indicated that the duty to accommodate the incapacity of the employee is more onerous in these circumstances".[47]

The Code continues that "in the case of certain kinds of incapacity, for example alcoholism or drug abuse, counselling and rehabilitation may be appropriate steps for an employer to consider".[46]

Considerations in determining the fairness of a health-related termination

The CGP also sets out the considerations which must be taken into account by any person determining whether a dismissal arising from ill-health or injury is unfair,[48] which are:

- *Whether or not the employee is capable of performing the work; and*

Table I: Examples of the alternatives which may be available to accomodate permanent workplace incapacity

Incapacity management alternatives

- Redeployment (new post)
- Transfer (new place)
- Retraining
- Multi-skilling (salaried staff)
- Multi-tasking (wage earners)
- Job rotation (onerous work within team)
- Job sharing (mutual assistance)
- Job exchange (between team members)
- Job output exchange (1 to 1)
- Cessation of a specific output
- Removal and substitution of a specific output
- Re-negotiating - job description
  - job output model
  - performance compact
- Providing supervisory/overseer duties
- Ergonomic adjustments
- Limiting/reducing repetitive physical activities
- Changing/substituting equipment used
- Adapting workstation
- Ceasing inappropriate behaviour/ habits
- Medical counselling on the medical difficulty
- Following/undergoing recommended medical interventions (with guidance)
- Rehabilitative assistance (with time off to attend)
- Appropriate lifestyle/choice changes
- Occupational therapy investigations with recommendations
- Attendance at guidance sessions
- Traditional healer assistance
- Physiotherapy/exercise etc.
- Counselling and guidance
- Employee well-being
- OHMP/OHNS guidance
- Psychological/psychiatric assistance
- Career management counselling
- Job/lifeskills planning/mentoring
- Stress management interventions
- Alternative medical management

• *If the employee is not capable:*
- the extent to which the employee is able to perform the work;
- the extent to which the employee's work circumstances might be adapted to accommodate disability, or, where this is not possible, the extent to which the employee's duties might be adapted; and
- the availability of any suitable alternative work.

Conclusion: New challenges

Managing employee incapacity fairly and effectively under the new legislation will in future be far more complex, technical and detailed. The LRA has placed far greater responsibility for impaired and disabled employees on the employer.

Ineffective, absent or unfair approaches to managing incapacity will be at risk to labour and civil litigation, employee mistrust and industrial action, and their consequences.

Within most organisations, the now necessary competencies are not available from any single function or department. Responsible managers use either a multi-disciplinary team approach, or training in the necessary medical, legal, industrial relations, occupational health, disability/impairment assessment, employee benefits, negotiation, facilitation, and conflict management skills.

OHMPs/OHNSs are not normally functionally positioned or professionally equipped to undertake responsibility or accountability for managing a fully integrated and comprehensive incapacity management system, with the necessary principles, processes and procedures.

An incapacity management procedure

Organisations have already identified the need to manage employee incapacity as a multi-functional strategic priority.

The necessary principles, processes and requirements for managing incapacity can be negotiated and agreed between manage-ment and organised labour as an Incapacity Management Procedure, in terms of the conditions of service and operating to the benefit of all stakeholders. The agreement functions like the Disciplinary or Grievance Procedure, or a Safety and Health Agreement.

For employees, the Agreement provides guidance and reassurance on how impairment/ disability will be managed; how termination, abuse, unscheduled and excessive authorised sick leave are managed; to communicate emp-loyee benefits and entitlements; and to promote job security against productive performance.

For employers, the Agreement ensures legislative compliance; reduces risk exposure; develops human resources; gives managers guidelines for addressing acceptable and unacceptable absence fairly and effectively, and promotes early intervention in reducing the cost of incapacity.

An employer's pension fund rules for ill-health qualifying criteria and application procedures may need to be renegotiated. Externally, insured PHI/Mortgage protection/ Capital Disability policies and disability definitions may need revision. These steps would reduce the spiralling volume of disability claims on pension funds or external insurers, and limit or reduce increasing employer costs for disability benefits.

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Nissan South Africa medical services: a new concept

Leighton McDonald

Nissan South Africa has a manufacturing plant in Rosslyn, north of Pretoria for the assembly of passenger vehicles, light delivery vehicles and trucks. A total of 4 800 people are employed, 75% of which are in the hourly paid category. In 1994 the medical aid scheme to which the hourly paid employees contributed, collapsed. This left the employees with no medical cover other than the Primary Health Care service based at the workplace (which obviously excluded dependants).

1995 has seen the introduction of the "Makoti Medical Plan" which is a modular managed care plan enabling the employees to choose the level of cover he/she requires. The choices can be summarised as follows:

Module	Cover	Company subsidy
One	General Practitioners Medicines Ambulance Services	100%
Two	Module one Plus Hospitalisation	75%
Three	Module two Plus Dentistry Optometry Specialists	50%

Health care is delivered to the employees and dependants by an outside agency on a managed health care basis - for this a "capitation" fee is paid to the providing agency. Health care delivery occurs at the following sites:

- Managed health care clinic based where the bulk of the employees live. This is a 24 hour clinic providing the services of GPs, nurses, a pharmacy as well as obstetric services.
- A workplace clinic for employees who wish to consult a health care professional during working hours.

The service includes:

- Accredited healthcare providers
- Dentists (one of whom is based in the Nissan medical station)
- Optometrists (one of whom is based in the Nissan medical station)
- GPs for employees not living in the proximity of the clinic
- Specialists

Occupational Health and Primary Health Care

The outside agency has taken over the responsibilities for primary health care services at the factory; thus leaving the Nissan medical personnel to concentrate on occupational health.

The major advantage of separating primary health care from occupational health in the workplace is that time can be set aside for occupational health that is normally eroded by primary health care examinations. (Simply because the nature of most ailments with which patients present affords them priority.)

This approach also ensures that the medical staff get sufficient experience in occupational health, and get time to do workplace inspections and become familiar with the working conditions. It is, however, vital that there is good communication between all medical personnel to ensure that patients get the appropriate treatment and that relevant changes can be made timeously in the workplace.

One of the stumbling blocks encountered in the establishment of this medical scheme has been the wide geographical range in which the employees live. Hence, whilst the managed health care clinic is situated where the bulk of people reside, there are a number of families who do not have access to the clinic for reasons of distance. It has been necessary to enter into negotiations with local general practitioners for these families to provide a health care service for a capitation fee. It is envisaged that once the client base of the health care providing company is expanded (by other industries buying into the system), it will be cost-effective to provide clinics in all the necessary areas to overcome this difficulty.

This medical scheme was developed jointly by representatives from the company and the trade union to ensure that it met the needs of all the parties involved. A medical committee has been formed and meets fortnightly to discuss any problems that may arise. Much effort has been required to educate the workforce on the benefits of managed health care and the necessity of a limited choice of health care providers in order to contain costs while still maintaining a high standard of medical practice.

Leighton McDonald, Nissan SA Rosslyn

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Mobile dental unit changes name

Ethnicare has been providing on-site dental treatment for over a year now to various companies and organisations in the greater Johannesburg area. The places visited by the Ethnicare mobile dental unit have benefited immensely if only from a convenience point of view. Demand for the service is growing daily.

As from 1st July 1996 Ethnicare changed its name to Mobile Health. This was considered necessary for strategic reasons. Dr George Yannoulias is still solely responsible for the management of Mobile Health (formerly Ethnicare). The staff of Mobile Health, and Dr George Yannoulias, will gladly accept any queries, should they arise, at the following numbers:

(011) 818-5474/5 (Office)
083 252-0870 (Cel)

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