

THE SOUTH AFRICAN SOCIETY OF OCCUPATIONAL MEDICINE

HIV / AIDS AT THE WORKPLACE

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1. INTRODUCTION

- 1.1. It must be emphasised that this document, produced by the SA Society of Occupational Medicine, is a guideline only. Every company in South Africa should have a specific HIV/AIDS policy drafted in consultation with their employees.
- 1.2. The Acquired Immune Deficiency Syndrome (AIDS) is caused by infection with a retrovirus, the Human Immunodeficiency Virus (HIV). This virus causes destruction of a specific form of white blood cell. These are known as Helper T Cells, and are commonly referred to as CD4 lymphocytes. Depletion of these cells results in a deficiency in the immune system, and infected people eventually die from opportunistic infections such as pneumocystis jiroveci pneumonia and tuberculosis or cancers such as Kaposi's sarcoma.
- 1.3. Without treatment, almost all those infected with the virus will eventually develop AIDS (although about 5 % of people seem to be long-term survivors and show no signs of the disease). Once AIDS develops, without treatment it is invariably fatal. Most sufferers dying within 6 to 18 months of the first AIDS-defining illness.
- 1.4. The figure below shows the typical progression of the disease There is thus a large pool of infected people worldwide who are carriers of the virus, without symptoms.

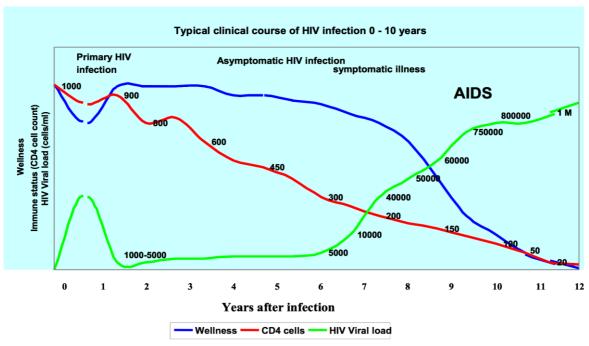


Figure 1: Clinical Course of HIV Infection

According to UNAIDS: There were approximately 36.9 million people **worldwide** living with **HIV/AIDS** in 2017. Of these, 1.8 million were children (<15 years old). An estimated 1.8 million individuals **worldwide** became newly infected with **HIV** in 2017 – about 5,000 new infections per day.

2. PREVALENCE IN SOUTH AFRICA of HIV/AIDS

- 2.1. One of the main HIV statistics for South Africa is that an estimated 7.52 million people were living with HIV in 2018. In 2017, 21 percent of people living with HIV globally were living in South Africa. The 90-90-90 targets set by UNAIDS are that in any particular country, by 2020, 90 percent of all people living with HIV (PLHIV) will know their HIV status. 90 percent of all people with diagnosed HIV infection will be receiving antiretroviral therapy (ART) and 90 percent of all people receiving ART will have viral suppression. By 2017 South Africa had attained 85-71-86. This does emphasize the need to get more PLHIV on treatment. The figure of 86 is unclear, as elsewhere in the HSRC report, the number of people reported as being virally suppressed is reported as being 87.5 percent.
- 2.2. People diagnosed with HIV. In South Africa 84.9 percent of PLHIV aged 15 to 64 years know their HIV status. 88.9 percent of HIV positive females and 78.0 percent of HIV positive males.
- 2.3. People living with HIV receiving ARVs Among PLHIV aged 15 to 64 years who know their HIV status, 70.6 percent are on ART. 72.2 percent of HIV positive females and 67.4 percent of HIV positive males.
- 2.4. People virally suppressed Among PLHIV aged 15 to 64 years currently on ART, 87.5 percent are virally suppressed. This comprises 89.9 percent of HIV positive females and 82.1 percent of HIV positive males.

3. TRANSMISSION

- 3.1. The virus is predominantly passed on through sexual intercourse with an infected person or by infected blood gaining access into the blood stream (for example, by blood transfusions or from the use of contaminated needles and syringes by drug addicts etc). Vertical transmission from infected mother to infant also occurs. Although the virus has been found in many body fluids, cases of the transmission have been recorded only from blood, semen, vaginal fluid and breast milk. Transmission has also been recorded through the use of contaminated dental instruments.
- 3.2. Infection is not spread through the air (sneezing or coughing) or by touch or sharing an office or washroom facilities with an infected individual. Mosquitoes have also not been shown to transmit the infection.
- 3.3. Thus essentially, persons in employment who are at risk, are those in the health-care services such as doctors, dentists, nurses and paramedics, who may come into close contact with infected body fluids through a cut or accidental "needle stick" injury. Other groups may have occasional exposure to infected body fluids, and could include first-aiders, emergency service personnel and community workers, etc.

4. EMPLOYMENT IMPLICATIONS

4.1. Pre-employment screening for HIV is expressly forbidden by South African law¹ unless it can be justified and is approved by the Labour Court. Since HIV infection per se

¹ Employment Equity Act, 55 of 1998 Section 7(2)

- does not imply unfitness, SASOM does not recommend the incorporation of HIV testing at the initial health evaluation (pre-employment, pre-placement examinations).
- 4.2. Employers are free in accordance with law to decide whom they wish to employ. The initial health evaluation is performed to ensure that the potential applicant is fit to perform a designated task at that time. Being a carrier of the virus has no effect on work capacity, and, as previously mentioned, in the work situation (apart from very specific health workers) there is almost no risk of an infected person passing the virus on to others.
- 4.3. The protection of retirement-fund benefits may justify testing, but since treatment has become available in State hospitals and the cost of treatment in the private sector has fallen; this need has largely fallen away. Companies should decide on their own guidelines or policies on this issue, and assistance can be obtained from their actuaries and pension funds if pension benefits are to be considered.

5. PREREQUISITES FOR ANY TESTING PROGRAMME

- 5.1. Even though modern tests are highly sensitive and specific, it should be clearly understood that tests to detect carriers of the virus are not absolute, and that both false positives and negatives will occur. This must be considered in conjunction with the expected prevalence in the test population and the "window period", during which infection has occurred, but antibodies have not yet developed, and standard tests will be negative.
- 5.2. Testing programmes fall into the following two main groups:
 - Those that are intended to provide prevalence information.
 - Those that are aimed at encouraging workers to take up treatment and care. The first is usually unlinked anonymous testing, and the second to voluntary counselling and testing. These are quite different in their application, and the ethics and logistics of the programmes are totally different.
- 5.3. As long as informed consent is obtained, Labour Court permission to undertake anonymous unlinked surveys is no longer necessary (PSG Building Glass vs CEPPAWU) nor is it necessary for VCT programmes. If compulsory testing is to be carried out, Labour Court permission is still required.
- 5.4. Surveys undertaken to assess prevalence should be properly planned and ethical approval sought from an appropriate ethics committee.
- 5.5. Where testing at initial health evaluation has been authorised by the Labour Court -
 - 5.5.1. it is essential that prospective workers are fully informed about what the test entails, what the implications and consequences would be of a positive test and that a specific indemnity in writing is given by the person to be tested, allowing blood to be taken for this purpose;
 - 5.5.2. confirmatory testing is performed if the screening test is positive and high-quality laboratory services are utilised for this;
 - 5.5.3. the medical officer advises the applicant of the result;

- 5.5.4. in the situation where the test is positive appropriate post-test counselling is essential; and
- 5.5.5. on very rare occasions, confidentiality may have to be breached to protect third parties. On the rare occasion of initial health testing it should not be necessary to give any diagnosis, but simply a recommendation of unfitness.

6. SEROLOGICAL SCREENING OR TESTING

6.1. Except in certain rare instances in health-care situations, HIV/AIDS is not transmitted during the normal course of work. Thus, mandatory screening serves no useful purpose, and is not recommended. However, the SA Society of Occupational Medicine, supports voluntary counselling and testing (VCT) in the workplace (see below). This is part of a comprehensive strategy to combat HIV in society. In the clinical situation testing for HIV should be part of the routine work up for individuals at high risk of infection.

7. VOLUNTARY COUNSELLING AND TESTING (VCT)

- 7.1. Since treatment has become widely available HIV is no longer the life-threatening condition that it used to be. It is therefore essential that HIV infection becomes managed in the same way as any other chronic medical condition. The stigma must be removed, and HIV testing must become just another diagnostic test.
- 7.2. VCT is the entry point to treatment programmes, and as long as confidentiality is maintained, consent is obtained, appropriate counselling is provided and there is follow-through to treatment, VCT in the workplace is encouraged and supported by the Society.

8. WORKERS WHO BECOME INFECTED OR DEVELOP AIDS

- 8.1. There are generally no grounds for dismissal purely on the basis that a worker has become infected. In the early stages' infection has no effect on the worker's health or productivity, and it is only later that productivity may be affected.
- 8.2. With effective treatment available no worker should progress to full-blown AIDS, but workers who develop AIDS should be treated in the same way as any other worker with a chronic illness. Employers need to take a reasoned view that is based on all the circumstances, weighing up factors such as the individual's ability to continue employment as against the worker's, the employer's or the public's interests. Workers have statutory rights (Labour Relations Act, Act 66 of 1995) against unfair dismissal. Should a worker be dismissed purely because he or she is infected, in most cases this would expose the employer to a claim for unfair dismissal.
- 8.3. It is also important to prevent victimisation of an HIV-infected individual as this will decrease the efficacy of any preventive programme by discouraging other employees to test for HIV, take treatment or disclose their HIV status.

9. REFUSAL OF WORKERS TO WORK WITH AN INFECTED CO-WORKER

- 9.1. Workers are more likely to avoid or refuse to work with an infected colleague when they have only limited knowledge about the disease, and consequently are worried that they will become infected. Providing information and education to workers about the mode of transmission should help to allay fears and lead to normal working relationships.
- 9.2. However, if workers continue to refuse to work normally with an infected co-worker, the employer should respond as he or she would to other forms of industrial action and try to resolve the problem through the normal industrial-relations channels.
- 9.3. This aspect could become problematical in future, and some employers may rather dismiss an infected worker, and accept the consequences of an unfair dismissal claim than have to deal with a striking workforce. It is again emphasised that adequate education of the workforce could forestall this problem.

10. WORKERS AT RISK OF INFECTION

- 10.1. Mention has already been made under Transmission that the people most likely to be at risk are health-care personnel and emergency workers. Precautions to ensure a high standard of infection control are already in force in hospitals and clinics to reduce the risk of transmitting infections in general. The use of gloves and other equipment when in direct contact with blood or other body fluids such as when administering first aid, suturing, etc, are equally effective against the HIV virus.
- 10.2. Accidental inoculation by contaminated sharp objects such as needles and scalpel blades (so called "needle-stick" injury) is a potential risk. Health-care staff and emergency workers must refrain from the common habit of bending or inserting disposable needles back into their sheaths after use, as this is a potentially easy way of inducing needle-stick injuries.
- 10.3. All sharps should be disposed of in a puncture-proof container.
- 10.4. Should an injury occur, promote bleeding by squeezing, wash the injured part thoroughly with soap and water and apply a disinfectant. All such injuries and any other accidental inoculation should immediately be reported to the supervisor or employer. If the contamination is from a known or HIV carrier or in certain other high-risk situations such as medical laboratory workers, blood should immediately be taken from the accidentally contaminated worker for testing and post-exposure prophylaxis set in motion. Retesting one to three months later is needed to determine if sero-onversion has taken place.
- 10.5. In the hospital setting patients with HIV infection may be nursed in an open ward and need not be barrier-nursed unless they have another infectious disease such as pulmonary TB or shingles. These patients may share the communal bathing and toilet facilities unless they are bleeding heavily or are incontinent of body fluids. Crockery and cutlery used by infected persons need not be treated in any special way. Surfaces contaminated by blood or secretions should be cleaned with liberal amounts of household bleach freshly diluted with water (1-part bleach to 10 parts water). Linen,

bedclothes and clothing which have been soiled by a patient's secretions, should be soaked in bleach (1:10 freshly diluted) for 30 minutes or autoclaved and then sent to the laundry to be washed in hot water cycle at 90° C or more for at least 10 minutes.

- 10.6. All workplaces (particularly factories where there is a risk of major injury) should have a formal procedure for cleaning up spills of blood and body fluids, and a suitable kit should be kept in readiness. A generic procedure is given in Appendix 1 attached to this document.
- In South African legislation the employer has a duty to provide reasonably safe premises and working conditions for the workers. Workers could therefore reasonably expect their employer to provide adequate information (literature, videotapes, lectures, etc.) about the potential risk of HIV infection in the workplace and provide equipment (such as rubber gloves, waterproof aprons, goggles, disposable syringes, mouthpieces for mouth-to-mouth resuscitation, disinfectants and any other appropriate equipment) to protect them. This is of special significance to health-care workers, first-aiders, emergency workers, etc., in employment. It should be noted that mouthpieces are available for mouth-to-mouth resuscitation, but should only be used by properly trained persons. To date no case of an infection has been documented as a result of giving mouth-to-mouth respiration.

11. LEGISLATION

- 11.1. At present, HIV/AIDS is NOT a notifiable condition in the Republic of South Africa. However, the following two regulations may be pertinent:
 - 11.1.1. Regulation 17 of the Admission of Persons to the Republic Regulation Act (Act 59 of 1972). This regulation was amended in October 1987 and includes Acquired Immune Deficiency Syndrome (AIDS); and infection with Human Immune Deficiency virus (HIV). It defines the afflictions which will render a foreigner to be a "prohibited" person who could then be refused entry into South Africa or who could be deported if already in the country.
 - 11.1.2. New regulations relating to communicable diseases and the notification of notifiable medical conditions were also promulgated in October 1987 under the Health Act (Act 63 of 1977). AIDS is now included as a communicable disease under Annexure 1 and this regulation contains measures regarding the carriers of communicable diseases, the compulsory examination and treatment of such persons, etc.

12. ETHICS AND CONFIDENTIALITY

12.1. As with any medical information, confidentiality is vital, but perhaps more so with this disease owing to the severe emotional stress for the patient and the social stigma that is attached to it. Access to patient information must be limited to health-care personnel who have a legitimate need to have access to the information in order to assist the patient or protect the health of others.

- 12.2. Taking the blood of a person for HIV antibody status without full informed consent, which must include counselling on the potential implications and consequences of a positive confirmed test, must be regarded as unethical.
- 12.3. Regarding the pertinent legislation quoted above, legal opinion in South Africa suggests that medical personnel "have a right to disclose" but DO NOT have a "duty to disclose" carriers of the virus and those with AIDS. In general, if it is in the public interest, a practitioner is entitled to disclose. Public interest would almost never justify disclosure to an employer without the worker's consent because HIV is not transmissible in the normal work situation, but public interest may justify disclosure to the sexual partners of a diagnosed HIV carrier.

13. PREVENTION

- 13.1. At present an effective way to prevent the spread of HIV is by education. Other prevention areas could include the avoidance of multiple partners, promotion of the use of condoms, male medical circumcision, appropriate PPE especially for health care workers, first responders and paramedics.
- 13.2. To encourage the uptake of anti-retro viral treatment with viral suppression for those living with HIV will also lead to a reduction in the transmission of HIV. UN targets of 90:90:90 (diagnose 90% on all HIV positive individuals, provide Anti-retroviral treatment (ART) for 90% of those diagnosed with HIV and achieve viral suppression in 90% of people treated, by 2020) should be promoted in the workplace to decrease the epidemic.
- 13.3. SA Society of Occupational Medicine urges Occupational Health Professionals in industry to assume a leadership role in educating their patients and the workforce about ways to prevent the spread of the virus. The worksite and adjoining hostels can be an effective area for health education, and this should include the entire field of sexually transmitted infections. The workforce should also have access to condoms where appropriate.

14. COUNSELLING

14.1. Due to the severe emotional distress for the patient and family, counseling should be available to help deal with this distress. This should be made available through the company's EAP programme, occupational health clinic or the local AIDS referral centers where expert advice may then be given to them.

Appendix 1

CONTROL OF EXPOSURE TO BIOLOGICAL FLUIDS IN THE WORKPLACE

1. INTRODUCTION

- 1.1. The possibility of exposure to blood or other body fluids is always with us, but it is often forgotten that machinery, floors and walls may have to be cleaned after an accident. High-risk categories of workers, e.g. health-care personnel and emergency workers and first aiders must be trained in the application of precautions to avoid contact with blood and other body fluids, and all first-aid boxes and kits must contain gloves and suitable resuscitation aids. The personnel who are required to clean up after an accident, or repair machinery that has become covered in blood, are not routinely trained in the safe handling of body fluids, and are therefore at greater risk of exposure to potentially infectious material, particularly where sharp edges or bone fragments may be encountered.
- 1.2. This procedure sets out guidelines for the safe handling of body fluids in the industrial setting.

2. THE HAZARD

Blood and other body fluids may contain infectious agents such as bacteria and viruses. The viruses that are of greatest concern are the Hepatitis B virus and HIV. The Hepatitis B virus is by far the most infectious agent and 0,01 ml can lead to infection. Infection with Hepatitis B carries a significant morbidity as well as a 5% mortality, and of those who survive the infection about 5% may develop liver cancer. HIV carries less risk but is more feared. Infections with other agents are possible but unlikely, as the individual would have to be ill at the time of the accident.

3. PRECAUTIONS

- 3.1. All blood and body fluids must be treated as infected.
- 3.2. Training of all personnel who may be involved with healthcare, first-aid or clean-up situations is extremely important.
- 3.3. Only in this way will infection with any of the possible agents be prevented.
- 3.4. Recognize risky situations, not only obvious pools of blood, but sharp edges on machinery or bone fragments that may be inside machinery or at the scene of an accident.
 - 3.4.1. Wear appropriate protective clothing (gloves, overalls, eye wear) when cleaning up an accident site.
 - 3.4.2. No worker with cuts or abrasions on the hands should be allowed to be part of the clean-up team.

3.4.2.1. Do not put your hands into areas where you cannot see whether there are sharp surfaces that may be contaminated.

4. SPILLS

- 4.1. A suitable disinfectant, such as bleach or hypochlorite, should be poured over the blood or body fluids, and left for at least 20 minutes.
- 4.2. It is important to demarcate the area to warn other workers not to step on the spill.
- 4.3. Clean the spill with absorbent paper and place in a plastic bag. NB: Gloves must be worn.
- 4.4. Tie the plastic bag securely and place in refuse bin.
- 4.5. Remove gloves, turning them inside out and discard them. Put on new gloves and wash the area thoroughly with bleach or hypochlorite.
- 4.6. If a mop was used, rinse it thoroughly with cold water; put it in bleach or a hypochlorite solution for 30 minutes, rinse and leave to dry.
- 4.7. If a rag was used, discard it.
- 4.8. Walls and other surfaces should be wiped down with a solution of bleach or hypochlorite.

5. MACHINERY

Machinery may contain pieces of bone or may have been sprayed with blood. All surfaces must be carefully wiped with a solution of hypochlorite or chlorine, taking care to avoid sharp surfaces.

6. WHAT TO DO IN CASE OF CONTACT WITH BLOOD OR OTHER BODY FLUIDS

- 6.1. Blood or other body fluids on unbroken skin carry virtually no risk. The area should simply be washed with soap and water. Abrasives such as scrubbing brushes should not be used.
- 6.2. Splashes of blood into the eyes or into the mouth do carry a risk of infection and should be washed out immediately with ample amounts of water and reported to the clinic.
- 6.3. Cuts or penetrating injuries by sharp surfaces that are contaminated with blood do carry a risk of infection. The area should be washed immediately with plenty of soap and water, and the wound squeezed and made to bleed. The injury should be reported to the clinic immediately.
- 6.4. All injuries must be reported to the Occupational Health Clinic and the Compensation Commissioner.

6.5. Appropriate post-exposure prophylaxis should be offered along with appropriate counseling for HIV infection. This will be made available through the company clinic or a suitable medical practitioner if there is no clinic facility.

NOTE

The SASOM guidelines are active working documents that are reviewed regularly, or as changes take place in legislation, the work or the workplace. Your inputs and comments are therefore regarded as most valuable. Please send them to info@sasom.org.