

MINISTRY OF HEALTH AND SOCIAL SERVICES

NATIONAL GUIDELINES ON POST-EXPOSURE PROPHYLAXIS FOR HIV, HBV AND TETANUS

AFTER WORKPLACE EXPOSURES AND SEXUAL ASSAULT

DIRECTORATE: PRIMARY HEALTH CARE SERVICES

DIVISION: PUBLIC AND ENVIRONMENTAL HEALTH

SUB-DIVISION: OCCUPATIONAL HEALTH SERVICES

Private Bag 13198, Windhoek

Tel: 061 203 2764/2

Fax: 061 234 083

ACKNOWLEDGEMENTS

These guidelines would not have been successfully completed without the support and valuable participation of individuals from various governmental and non-governmental organizations who contributed to the development and finalization of this document. Special thanks go to the participants from MOHSS's Directorate of Special Programmes, Quality Assurance, Occupational Health Services, the Women and Child Protection Unit, University Research Co. LLC (URC) under USAID funded Medical Injection Safety Project and Health Care Improvement Project; and representatives from public and private hospitals who took part in the 2010 workshop to update the guidelines.

The guidelines are part of a dynamic process and undergo periodic review. They are intended to complement the most current guidelines for ARV use from the MOHSS Directorate of Special Programmes, last issued in 2010.

The review of this guideline was supported by the American people through the U.S. Agency for International Development (USAID) and its Bureau for Global Health, Office of Health, Infectious Diseases and Nutrition and Mission in Namibia. The review was carried out by staff (MOHSS and URC) and consultants of University Research Co., LLC (URC) under the USAID funded Health Care Improvement (HCI) Project, which is managed by URC under the terms of Contract No. GHN-I-00-07-00003-00.

PREFACE

HIV, Hepatitis B and Hepatitis C are hazards of serious concern for Namibian workers with occupational exposure to blood and other potentially infectious materials.

While health care workers in particular are potentially exposed to infectious hazards in the workplace, workers in other settings may also be exposed to Human Immunodeficiency Virus (HIV), Hepatitis B, Hepatitis C and tetanus through their work. For example, laundry workers, taxi drivers, first aid workers and waste handlers may suffer occasional exposures to blood on the job. Thus these guidelines are intended as a practical tool for all workers who are exposed to blood and body fluids in the course of their work. These guidelines offer workers and their employers the steps to take to prevent occupationally-acquired HIV, Hepatitis B, Hepatitis C and tetanus.

Exposure to blood-borne pathogens may occur in several ways. Although needle prick injuries are the most common occupational exposure that results in infection, blood splashes to the eyes or mouth, and even more rarely, infected blood on non-intact skin has resulted in infections from blood borne pathogens to a few workers.

Sexual assault is another route of exposure that can lead to occupationally acquired infections. While sexual assault is an illegal, criminal act, it may occur especially to domestic workers, workers living in residential halls and to those who serve in isolated areas. Information about preventing infections after sexual assaults is included here because, while it should include involvement of the criminal justice system and evidence collection, the post-exposure prophylaxis after sexual assault is essentially the same as for other occupational exposures.

While this booklet discusses PEP in detail, prevention remains the primary strategy for the prevention of occupational, blood-borne infections. In this booklet, 'Standard Precautions' has replaced 'universal precautions' as a broader set of safety measures to prevent as many types of infections as possible in workplaces reflecting the current research and practice. Standard precautions, if rigorously adopted, may minimize the occupational exposure to blood-borne viruses in Namibia.

However, in spite of the best preventative measures, some exposures to blood will still occur. Factors that contribute to this include:

- understaffing,
- low rates of employee vaccination or failure to seroconvert,
- overcrowded health facilities,
- the difficulties of surgery with sharp instruments in a confined, blind body cavity,
- unexpected patient movement during procedures with sharps,
- lack of, or failure of devices, safety boxes or PPE, and
- human factors, including fatigue and lack of dexterity in new employees.

Because not all exposures can be prevented, all workers in Namibia exposed to blood and body fluids should be informed about the tasks that may put them at risk, educated in the measures to protect themselves, provided with the necessary supplies and equipment to perform the task safely, and advised of the importance of seeking advice immediately following any needle prick injury or exposure to blood and body fluids.

These guidelines expand upon these preventative measures first described in the 2004 guidelines and include the following changes:

1. Re-emphasis on primary prevention of occupational exposures by moving from universal precautions to standard precautions.
2. Guidelines for PEP for non-healthcare workers exposed to blood and body fluids.
3. Guidelines for PEP after sexual assault.
4. New recommendations for drugs for HIV PEP.
5. Eliminating screening for immunity prior to hepatitis B vaccination.
6. Removal of the recommendation for routine hepatitis B vaccine booster 5 years after completion of the primary vaccine series.
7. Removal of the universal recommendation for tetanus boosters regardless of vaccination history.
8. Emphasis on the employers' responsibility to establish systems to prevent, treat and monitor those exposed to blood and body fluids.
9. Requirement that exposed employees be tested for HIV prior to the receipt of PEP, or as soon as possible thereafter.

In other countries who have instituted effective plans, efforts at primary and secondary prevention have reduced the number of reported cases of occupationally acquired HIV to zero in the last ten years. Together, we can do the same.

A circular official stamp from the Ministry of Health and Social Services, Republic of Kenya, is partially obscured by a handwritten signature in blue ink. The stamp contains the text 'MINISTRY OF HEALTH AND SOCIAL SERVICES' and 'REPUBLIC OF KENYA'.

Mr. K. S - M. Kahuure
PERMANENT SECRETARY

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ABBREVIATIONS

| | |
|--------------------------|---|
| ALT | Alanine transaminase |
| AST | Aspartate transaminase |
| AIDS | Acquired Immunodeficiency Syndrome |
| Anti-HBc or HBcAb | Anti-Hepatitis B core antibodies |
| Anti-HBs or HBsAb | Anti-Hepatitis B surface antibodies |
| ARV | Antiretroviral |
| CDC | U.S. Centers for Disease Control and Prevention |
| HCW | Health Care Worker |
| HAART | Highly Active Antiretroviral Treatment |
| HBIG | Hepatitis B Immunoglobulin |
| HBV | Hepatitis B virus |
| HCV | Hepatitis C virus |
| HBsAg | Hepatitis B surface antigen |
| HIV | Human Immuno-deficiency Virus |
| IM | Intramuscular |
| MOHSS | Ministry of Health and Social Services |
| NNRTI | Non-Nucleoside Reverse Transcriptase Inhibitor |
| NRTI | Nucleoside Reverse Transcriptase Inhibitor |
| PEP | Post-Exposure Prophylaxis |
| PI | Protease Inhibitor |
| RPR | Rapid Plasma Reagin Test (for syphilis) |
| TIG | Tetanus Immunoglobulin |

DEFINITIONS

| | |
|-----------------------|---|
| Employee: | For PEP eligibility, an employee is defined as a person in a workplace who is exposed to blood and body fluids during the course of their duties, or when on the worksite or coming to and from work. Contract workers, students assigned to clinical rotations, apprentices, volunteers, and foreign workers should be considered “employees” in this document unless a written Memorandum of Understanding (MOU) states otherwise. Note: the Social Security Commission may define employee differently for purposes of determining eligibility for compensation after occupational illnesses. |
| Employer: | An entity who contracts with at least one other person for their paid labour. For students, educational institutions may be the responsible entity for post-exposure prophylaxis if a Memorandum of Understanding (MOU) exists between a health care facility and a school or college. |
| Exposure: | <p>Contact with a chemical, biological or physical hazard. In the context of this document, exposure refers to contact with human body fluids that are potentially infectious with HIV, HBV and HCV. Occupational exposures that place HCWs at risk of HBV, HCV or HIV infection can be divided by the type of exposure. Each type has a different risk of disease transmission:</p> <p>Percutaneous Exposure: Injection through the skin of blood, tissue, or other body fluids that is potentially infectious. For example needle sticks, injuries from phlebotomy needles, injuries from broken lab tubes, scalpel blade cuts are percutaneous injuries. Percutaneous exposure is the most common exposure that is reported in association with occupationally acquired infection.</p> <p>Mucous membrane exposure: Splashes in the mouth or eye are examples. These exposures have on rare occasion resulted in occupational diseases. Exposure on non-intact skin. Examples are blood exposures to skin that is chapped, abraded, or afflicted with dermatitis. Body fluids on skin with cuts, sores or lesions would also be considered a significant exposure. This is the most common type of exposure, but the occupational exposure least likely to result in infection.</p> <p>Exposure on non-intact skin: Body fluids on skin that is chapped, abraded, with lesions or afflicted with dermatitis</p> |
| Exposed: | The person who has been in contact with blood or body fluids from another person. |
| Exposed staff: | Unless otherwise stated, exposure refers to HBV, HCV and HIV. |
| Hazard: | Probability of impairment of health following exposure to a specific substance. |
| HBV immune: | Persons who have had 3 doses of age-appropriate Hepatitis B vaccine OR persons who have titers ≥ 10 IU to HBsAB+ when tested, OR persons who have a history of Hepatitis B disease confirmed by laboratory tests (e.g. HBsAG+, HBeAG+, HBsAB+, HBeAB+). |

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| HBV susceptible: | Persons are considered susceptible to infection if they have had fewer than 3 doses of Hepatitis B vaccine, or were tested 30-60 days after vaccination and had a titer < 10 IU; and persons who have no documented history of Hepatitis B infection. |
| Health Care Workers (HCW): | HCWs are defined as employees whose activities involve contact with patients or with blood or other body fluids from patients. These health care workers include, but are not limited to: physicians, dentists, dental employees, phlebotomists, nurses, mortuary attendants, paramedics, laboratory technicians, porters, cleaners, home health aides, midwives, birth attendants and laundry employees. |
| Post-Exposure Prophylaxis (PEP): | Medications to prevent infection following exposure to a pathogen. In this document PEP for HIV, HBV, and tetanus is discussed. |
| Potentially infectious body fluids: | Unless stated otherwise, the phrase refers to fluids that are potentially infectious for HIV. These include: blood, bloody fluids, semen, vaginal secretions, cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids. While breast milk is infectious to babies if ingested, PEP is not typically offered for workers with occupational exposure to milk on their skin. Note that while other body fluids may carry other infectious agents; they have not been shown to transmit HIV infection in the absence of blood contamination. |
| Risk: | The potential for a hazard to cause bodily harm or injury. |
| Significant exposure: | An exposure to blood or body fluids that has been shown to result in infection in at least one documented case. Factors that increase that significance or risk of infection include the susceptibility of the host, the concentration of virus in the body fluid, the volume of body fluid in the exposure (larger in hollow bore needlesticks), the duration of the exposure, the anatomic site of the exposure (deep needlesticks), and the time between exposure and prophylaxis. |
| Non-significant exposures: | Exposure to blood and body fluids that has not been shown to result in HIV or Hepatitis B infection. Examples of non-significant exposures include, blood on intact skin, blood from an HIV- source patient, exposure to blood dried for weeks at 40 C outside, or exposure to breast milk on intact skin. |
| Source: | The person from whom the blood or body fluid originated. |
| Workplace: | Site where employees work on a permanent or temporary basis. |

1. INTRODUCTION

The peoples of Southern Africa are experiencing an HIV/AIDS epidemic of shattering proportions, with some 200,000 Namibians estimated to be living with AIDS, and 5.2 – 5.7 million persons in South Africa infected.¹

HIV/AIDS is the major public health problem in Namibia. It touches all lives, but directly impacts the young and economically active sector of the population and those who are responsible for the care and support of their families. According to the 2007 surveillance data, the prevalence of HIV in the prenatal clinics has declined from 22% in 2002 to 15.3%.² In hospitals, the prevalence remains higher as ill members of the population seek care. This high burden of disease poses a potential risk to health care workers (HCWs) who attend to and care for these individuals.

1.1 RISK OF ACQUIRING HIV, HEPATITIS B OR HEPATITIS C IN THE WORKPLACE

In most occupations, workers are not at risk of acquiring or transmitting viruses such as HIV, HBV, or HCV. Only in a limited number of occupations, including healthcare professions, do employees come into direct contact with the human blood and body fluids and thus risk acquiring HIV, HBV, or HCV infection. It is important to remember that the injured person can also put patients and others at risk. For example, an employee's bleeding finger may contaminate surfaces. Another worker may touch the surface with a finger and then rub an eye, or a health care worker may bleed into patients during surgery or dental care. Preventing such sharps injuries may protect more than one individual.

1.1.1 RISK OF HIV TRANSMISSION FROM HIV POSITIVE SOURCES

Fortunately, the risk of disease transmission from exposure to blood and body fluids is low. Based on registries that track the outcomes of exposed workers and patients, the CDC estimates that the overall rate of nosocomial transmission of HIV after needle prick injuries from HIV seropositive sources is 0.3%³: In other words, for every 100 needlesticks from HIV positive patients, three persons would be expected to develop HIV. Source patients treated with ARV who are adherent and have low viral load may have an even lower rate of transmitting infection because treatment lowers the number of viruses in the blood.

In summary, HIV infection attributable to occupational exposure is a serious but uncommon risk. Workers face a much higher risk of HIV in their personal lives, including through sexual contact.

1.1.2 RISK OF TRANSMISSION FROM HBV AND HCV POSITIVE SOURCES

The risk of HBV and HCV infection after an occupational exposure is significantly higher than the risk from HIV. Studies have shown that the rates of HBV infection after a needle prick from infected source patients, has ranged from 1 - 30%³. The risk of HCV transmission is between the rate for HBV and HIV; the rate of HCV infection from a meta-analysis tracking 11,324 workers exposed to HCV was 0.5% (95% CI 0.39-0.65)⁴, slightly lower than CDC's estimate of 1.8% (0-7%).³

1.2 PRIMARY PREVENTION OF EXPOSURE

The mainstays of primary prevention include:

- Single use of syringes and needles,
- Elimination of recapping of needles prior to disposal,
- Reduction of unnecessary sharps procedures,
- Immediate disposal of sharps into a safety box at the point of use, and
- Use of barrier precautions like gloves to handle body fluids

Secondary prevention strategies now include PEP with ARV therapy but are less cost-effective. The guidelines discuss **primary and secondary prevention** in four sections:

1. The legal framework relating to occupational exposures to biohazards.
2. The employers' responsibilities to prevent exposures and to establish a system for PEP.
3. Post Exposure Prophylaxis for occupational exposure to blood and body fluids to prevent HIV, HBV, HCV and tetanus infection.
4. Post Exposure Prophylaxis to prevent HIV, HBV, and HCV after sexual assault.

2. LEGAL FRAMEWORK

Health care is a labour-intensive industry, and in Namibia HCWs constitute a major sector of the workforce. The major focus of the health care industry is the diagnosis, treatment, rehabilitation and care of the sick. These activities create a special set of dynamics, for the sick exhibit varying levels of physical, social and emotional dependencies. The sick often receive special services and considerations, frequently at the expense of the HCW's personal comfort, safety and risk.

2.1. PRESIDENTIAL PROCLAMATION

In 1997, the executive control of specific occupational health services in terms of the “Regulations Relating to the Health and Safety of Employees at Work”, made under the Labour Act 1992, (Act 6 of 1992 amended as Act 11, 2007), was divided between the Ministry of Labour, Ministry of Health and Social Services and Ministry of Mines & Energy by Presidential Proclamation. As a result, the three ministries were delegated to exercise and perform statutory requirements of occupational health and safety in the various Namibian work environments.

Working on a “tripartite basis”, the ministries have been tasked with the control of occupational health and safety within their own specific frameworks. The Ministry of Health and Social Services, in co-operation with these line ministries, is spearheading the implementation, monitoring and control of the relevant legislation relating to health issues in the various workplaces.

2.2. LABOUR ACT: GENERAL DUTIES OF THE EMPLOYER AND EMPLOYEE

The Labour Act 1992 (Act 6 of 1992 amended as Act 11, 2007), in recognition of the importance of health, safety and welfare of employees in the work place, addresses the legal framework for occupational health and safety. It contains provisions designed to maintain and improve work environment-related standards for all persons in Namibia and provides the basis for unifying and coordinating occupational health and safety legislation and the administration thereof on a national basis.

2.2.1 ROLE OF THE EMPLOYER

In accordance with the Labour Act 1992 “Regulations Relating to the Health and Safety of Employees at Work,” the duties and responsibilities of employers and employees at the workplace are highlighted.

According to the Regulation 2 (6) of the “Regulations Relating to the Health and Safety of Employees At Work”:

All safety equipment and facilities, including personal protective equipment and clothing that an employer is required to provide in terms of any provision of the Act or these regulations, shall be:

- (a) appropriate and effective for the purpose for which it is provided;
- (b) Provided free of charge.

It shall therefore be the obligation of the employer to provide any employee in an occupation, where there may be a risk of acquiring and transmitting an infectious disease, including HIV-

infection, with clear and accurate information on the hazards, adequate training to minimize the hazards and personal protective devices/measures, free of charge to the employee.

2.2.2 ROLE OF THE EMPLOYEE

Prevention of avoidable exposure is always of cardinal importance. International preventative measures in the form of 'standard precautions' have been established to prevent needle stick injuries and occupational exposures to contaminated blood and other potentially infectious material.

Every employee has the obligation to adhere to the principles of standard precautions, which include utilizing the preventative measures provided by the employer in order to minimize as much as possible the risk to acquire or transmit communicable diseases, including HIV, Hepatitis B and Hepatitis C, in the workplace.

2.2.3 CONFIDENTIALITY OF EXPOSED HCW

All medical records pertaining to the exposed HCW as well as the source are to be kept confidential. According to the Regulation 2 (6) of the Regulations Relating to the Health and Safety of Employees at Work of the Labour Act, 1992 (Act 6 of 1992 amended as Act 11, 2007):

Individual medical data and results of medical examinations or surveillances shall be recorded in confidential medical files which shall be secured under the responsibility of the occupational health practitioner or the occupational health nurse for a period of ten years.

The employer and the workplace safety representatives are entitled to obtain only such information which:

- the occupational health personnel have acquired due to the nature of their position, and
- Which is significant with regard to the employee's health and with regard to the improvement of the conditions of the workplace?

Health data on employees shall, if disclosed, be disclosed in such a form that the employee's privacy will be safeguarded.

Confidential information may be communicated only with informed consent, in writing, by the employee concerned.

2.2.4 STAFF TRAINING

The "Regulations Relating to the Health and Safety of Employees at Work" of the Labour Act (Act 6 of 1992 amended as Act 11, 2007), Regulation 2 of Employers Duties states:

An employer shall provide every employee in his or her employ, including any person serving an apprenticeship in terms of any law with training in the tasks that he or she is to perform, including all aspects of health and safety related to such tasks, so as to enable the employee to take reasonable care of his or her own safety and that of other employees.

Staff training issues include:

- Avoidance of occupational exposure to HIV/HBV/HCV by adherence to Standard Precautions, safe working practices and use of personal protective equipment as appropriate;
- Renewed attention for the handling of sharps and all infected materials (e.g. never recapping needles, disposal of all sharps in the appropriate disposal containers, etc);
- Action to be taken following possible exposure including immediate first aid. Clear information should be provided to all healthcare workers about where emergency advice and assessment can be obtained;
- The importance of reporting and monitoring all needle stick, percutaneous and other potentially significant occupational exposures. For each exposure, the supervisor should investigate the circumstances and propose measures to avoid recurrence;
- Encouraging health care workers particularly at risk to maintain awareness of the principles of PEP. Some may wish to consider the pros and cons of PEP before any event, although views may change depending on the particular circumstances of an exposure;
- Training of junior staff (e.g. junior casualty officers, pharmacy assistants) who may be called upon to assist a colleague immediately after an incident, or who may be responsible for supplying a starter pack.

2.3. GOVERNMENT GUIDELINES

In response to the AIDS pandemic and its volatile and dynamic nature, the Ministry of Labour, in conjunction with the Ministry of Health and Social Services and with the wide tripartite consultation through the Labour Advisory Council formulated the National Code on HIV/ AIDS in Employment for HIV Prevention and AIDS Management. This code is proposed as an integral part of the government's commitment to address most of the major issues related notably to the prevention of new infections as well as to other provisions of optimal care and support for the workforce.

Workplace-based activities that locate HIV prevention and AIDS management in a sustained and comprehensive programme of health promotion have demonstrated gains in general health indicators. This implies a need for stronger public health approaches in the productive sectors.

The same ethical principles that govern all health/medical conditions in the employment context should apply equally to HIV/AIDS.

3. PREVENTION

3.1. PREVENTION IS KEY

Primary prevention will save more employees lives than will PEP. Because exposures and use of PEP cause profound worry, significant side effects, disruptions to family life, and difficulties with testing and medication adherence, efforts to prevent exposures should remain key. Because of this, employers should ensure that preventive measures remain firmly in place even as they work to expand access to PEP and rapid testing.

Employers with employees exposed to blood and body fluids should institute Standard Precautions, which refer to a set of measures to be applied to all patients and clients. The elements of Standard Precautions include:

- Hand hygiene
- Use of gloves, mask, eye protection and cover gowns to protect employees when exposure to body fluids is anticipated or likely, and use of barriers to protect the patient during care including invasive procedures
- Laundry management
- Cleaning of the environment and reprocessing of contaminated equipment
- Safe disposal of sharps in safety boxes and separation and containment of hazards in waste
- Injection safety to avoid re-use of devices, bending or breaking of needles, contamination of multi-dose vials and elimination of two-handed recapping
- Vaccination for employees
- Patient placement to separate patients who pose a risk of infection to others despite use of standard precaution (e.g. viral hemorrhagic fevers, MDR-TB Methicillin Resistant *Staphylococcus aureus* (MRSA) infections, or *C. difficile* infected patients, etc.)
- Cough etiquette to ensure that staff visitors and patients who may be infectious cover their cough, use hand hygiene and avoid contact with others.

These measures are discussed in more detail in the National Infection Control Guidelines.

3.2. EMPLOYERS' ROLE IN PRIMARY PREVENTION

Employers should use an interdepartmental and interdisciplinary working group to identify the occupational procedures and tasks that put employees at risk of infection. After conducting this risk assessment, they should target the persons in positions that do those tasks for vaccination and education. The employer should prepare a plan describing the appropriate systems, supplies, and procedures to reduce the risk of exposure to blood borne pathogens. The aim is to both prevent potential exposures (primary prevention) and to reduce the risk that exposures cause infectious or psychological harm (secondary prevention).

Employers should undertake the following steps:

- Conduct a risk assessment to identify risks of exposure to blood and body fluids, and the roles or positions that are at risk.
 - o The risk assessment should be updated every two years or when new processes, procedures or equipment are added that pose a new risk of exposure.
 - o Include persons from different departments and occupational categories in the risk assessment.
 - o Ask the occupational health staff where exposures have been occurring in past injury reports.

- List the persons in positions doing tasks or working in environments exposed to blood and body fluids, so this can be used to identify persons in need of Hepatitis B vaccine.
- Make efforts to eliminate hazards or reduce their consequences by use of engineering or administrative controls such as: eliminating the sharps, reducing unnecessary invasive procedures and injections, and/or redesigning the tasks.
- Provide information about occupational hazards to employees upon hire and assumption of new duties.
- Train new employees how to minimize exposure to the hazard, including personal protective equipment and safety devices that should be employed.
- Provide effective personal protective equipment and safety equipment (including safety boxes) to staff exposed to blood and body fluids. It is the employers' responsibility to prevent stock outs and replace torn or used PPE that doesn't provide protection.
- Offer the Hepatitis B vaccine to HBV susceptible staff in positions with possible exposure to blood and body fluids upon hiring, and provide employees with documentation of vaccination upon transfer to a new facility.
- Track HBV vaccine completion rates by individual and by percentage of immune persons in positions exposed to blood.
- Establish a system to manage infectious waste that minimizes exposure to the patients, workers and the public.
- Document that the above responsibilities have been fulfilled.

3.2.1 CONDUCT A RISK ASSESSMENT

While health care services are often aware of tasks related to blood exposures, non-health industries may need to conduct a more rigorous assessment to learn of the procedures that put staff at risk. Employees should learn to treat blood as a substance that can cause disease. The following is a partial list of positions in non-health care industries that may face occupational exposure to disease.

- Employees of facilities that handle or test human blood, including forensic or genetic laboratories
- Employees who do skin-piercing procedures such as ear piercing, cosmetic procedures, circumcision, and/or prepare bodies after death
- Employees who provide first aid
- Persons who transport, shelter, assist, care for or guard children, vulnerable or incapacitated adults
- Employees who work with sharps or are frequently injured including cooks, soldiers
- Persons who clean, transport or destroy items with blood and body fluids including laundry, housekeepers, repair shops, lab courier services, waste handlers, and incinerator operators
- Persons who clean after car accidents or crime scenes

3.2.2 INFORM EMPLOYEES HOW TO MINIMIZE JOB HAZARDS AND EXPOSURES

During orientation, the supervisors should provide written information about the hazards associated with the position and how to reduce the risk of exposure. This should be documented in the employees file. It is helpful to reinforce these instructions by posting job aids at the point of use as well, and through supportive supervision.

Personal protective equipment (PPE) is an important way to minimize exposures to blood and body fluids. Suggested PPE for common health care tasks are shown in the table below.

Table 1: Example of Personal Protective Equipment to Use for Common Tasks

PERSONAL PROTECTIVE EQUIPMENT USE FOR COMMON TASKS

| | Gloves* | Mask, particulate respirator or face and eye protection | Leak proof gown | Other |
|---|-------------------------------------|---|---|--|
| Emptying bed pan or urinal | Clean | If splashing possible | | |
| Cleaning instruments | Clean | Yes | | Slotted racks with handles to reduce exposures |
| Starting an IV | Clean** or Sterile | | | |
| Dressing change | ***Clean gloves and sterile | | If contamination likely | |
| Wound care with water picking | ***Clean gloves, and sterile gloves | | If contamination likely | |
| Assisting at a delivery | Sterile gloves | | Yes, should be used for one patient and discarded or laundered with sodium hypochlorite | |
| Feeding patients | Clean | | | |
| Vaginal exam, non-pregnant woman with intact skin | Clean | | | |
| Vaginal exam, waters broken | Sterile | | Yes, should be used for one patient and discarded or laundered with sodium hypochlorite | |
| Suctioning airways | Sterile | | If splashing likely | |
| Oral care | Clean | | | |
| Transporting specimens to the lab | Clean | | | |
| Providing first aid to a bleeding patient | Clean | | If contamination likely due to bleeding | |
| Cleaning body fluids | Clean | | Yes, aprons should be removed before leaving the facility | |
| Lumbar tap | Sterile | Yes, to protect the patient | | |
| Collecting sputum specimens | Clean | Yes, HEPA (N95) mask and best to collect outdoors | | |
| Touching wet surfaces or blood and body fluids | Clean | | | |

*C = clean gloves, S = sterile gloves

**Clean gloves with no-touch technique, otherwise sterile gloves.

***For dressing changes, clean gloves to remove dressing, hand hygiene and then sterile gloves to place new dressing

3.2.3 PROVIDE PERSONAL PROTECTIVE EQUIPMENT TO EXPOSED STAFF

It is the responsibility of the employer to provide staff with readily available gloves, leak-proof gowns, face and eye protection (face shields, surgical masks and/or goggles), and foot protection to use during duties that may expose them to blood and body fluids. The supplies should be available at no cost to the employee.

A variety of sizes should be available, as ill-fitting equipment may increase the risk of exposure during the task.

If staff are allergic to latex gloves, they should be provided with a non-latex alternative such as nitrile gloves, or reassigned to an area where use of latex gloves is not required.

The PPE item may be reused if it offers comparable levels of protection after multiple uses and undergoing sterilization or disinfection. Gloves, which do not offer comparable levels of protection on reuse, should be used once and discarded.

Lab coats and white coats are not impervious to liquids and are not considered to be personal protective equipment.

Other types of PPE may be needed to protect from other hazards, or to provide aseptic care. Respirators and masks intended to protect staff from respiratory hazards (airborne, droplet, dusts, mists, and fumes) are not considered here. However surgical masks can protect the mouth, nose and face from blood splashes, and for that reason are sometimes recommended when other face protection is not available.

Personal protective equipment protects both the employee and the patient or client. In addition to the PPE recommended to protect the employee, infection control staff may recommend additional PPE to prevent the spread of infections during outbreaks or when the risk of infection is not contained by the use of Standard Precautions.

While this document refers to exposure of employees, the persons with the greatest exposures are typically those who assist at delivery, including midwives and traditional birth assistants. Many of these persons are not employed in the conventional sense and may not be able to obtain or advocate for adequate PPE despite the fact that they face the same risks as an Obstetrics-Gynecology physicians. Entities that employ or work with birth attendants of any type should promote their access to gloves, single use aprons, face, and foot protection. Birth attendants have exposure to potentially fatal infections as they provide their compassionate, essential and often uncompensated care. Because of the high prevalence of Hepatitis B and HIV infection in pregnant women in Namibia, prepackaged birth kits should be encouraged to include gloves and protective aprons. In health care facilities, managers should ensure that staff with the same risks of exposure should have the same quality of protection regardless of their social or professional status.

3.2.4 OFFER HEPATITIS B VACCINE DURING PRE-SERVICE TRAINING OR BEFORE ASSUMPTION OF DUTIES

Those undergoing training in professions with high exposure to blood and body fluids should have their vaccination status assessed, and be offered 3 doses of Hepatitis B vaccine by their employers or training institution at the time of professional education, licensing, hire or change in duties to tasks with a risk of Hepatitis B. Educational institutions and educational apprenticeship programs including embalming programs, programs to train mortuary workers, laboratory workers, military employers, hotel cleaners, laundry staff, first aid workers should provide Hepatitis B vaccine to students.

Non-health care employers should offer Hepatitis B vaccine at no cost to employees whose tasks expose them to blood and body fluids.

Assess past vaccination status:

When an employee begins a new role or begins doing procedures that expose him/her to blood or body fluids, the employer should verify vaccine history for Hepatitis B, offer vaccine if non-immune, and document either the receipt of vaccine, refusal or immune status. Persons who received three doses of hepatitis B, either as a single antigen or as a combination vaccine in childhood are assumed to be protected or immune. Written records are preferred, but oral histories of vaccination history will be accepted if the person states they are certain they have received three doses of vaccine.

Employers should keep vaccination histories in a location accessible at all times to persons who may need to advise about post-exposure prophylaxis during night shifts or weekends.

Offer vaccine to those with fewer than 3 doses, or unknown vaccination status and record declinations or doses given

Employees in positions identified during the risk assessment in 3.2.1, should be offered Hepatitis B vaccine at no cost prior to the assumption of their duties.

Those providing vaccine should keep records for future reference and provide a copy to the person vaccinated.

Persons who have not been immunized should receive a total of three doses.

3.2.5 HEPATITIS B VACCINATION/DECLINATION FORM

Facility Name: _____

I understand that due to my occupational exposure to blood or other potentially infectious materials (OPIM), I may be at risk of acquiring Hepatitis B virus (HBV) infection.

You have given me the opportunity to be vaccinated with the Hepatitis B vaccine, at no charge to myself.

However, I decline Hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If, in the future, I continue to have occupational exposure to blood or other potentially infectious materials, and I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

- I have already received 3 doses of Hepatitis B vaccination series and have shown documentation to the person signed below.
- I have already received at least 3 doses of Hepatitis B vaccine but do not have written documentation.
- I decline because I have had Hepatitis disease which was confirmed by a laboratory test to be Hepatitis B.
- I decline because _____

Employee's Name (Print) _____

Employee's Signature _____

Date _____

Name of supervisor checking record _____

Give a total of 3 age appropriate doses, intramuscular (IM) into the deltoid:

Three doses of the vaccine should be given to all health care workers who have not completed 3 doses of hepatitis B vaccine (excluding a birth dose). The recommended schedule for the vaccination is: 0, 1, and 6 months (other schedules are: 0, 1, 4 and 0, 2, 4 months). There must be at least 4 weeks between doses #1 and #2 and at least 8 weeks between doses #2 and #3. Longer intervals between the second and third dose may increase the HBsAB titers but will not change seroconversion rates⁵.

If an employee has had 1 dose of vaccine, give subsequent doses at least one month apart for a total of three doses (excluding a birth dose). Avoid injection into the gluteus maximus, where subcutaneous deposition is likely and injury to the sciatic nerve a possibility.

The volume of the dose for adults will depend on the vaccine manufacturer and presentation. Refer to the package insert for brand specific instructions

Table 2: Examples of the Variability of Antigen Doses in Selected HBV Vaccines

| Group | Engerix-B® dose in µg | Recombivax® HB dose dose in µg | Comvax® Combination vaccine dose in µg | Pediarix® Combination vaccine dose in µg | Twinrix® Combination vaccine dose in µg |
|---|--------------------------|--------------------------------------|---|---|--|
| Infants, children and adolescents <15 years** | 10 | 5 | 5 | 10 | — |
| Adults ≥ 20 years of age | 20 | 10 | — | — | 20 |

Table adapted from Mast E and Ward J. Hepatitis B vaccine, in Vaccines. Plotkins, Orenstein, and Offit, Eds. Fifth Edition, Saunders Elsevier. China. 2008; p.218.

**WHO uses < 15 years of age for the cut-off point for adult dosing, while the original reference used 20 years of age.

Do not do antibody testing before routine HBV vaccination:

Do not measure titers before immunization. It is not cost-effective to test for past immunity or infection prior to vaccination when the cost of testing exceeds the cost of vaccination. Additional doses of vaccine will not cause harm. Persons known to have a history of laboratory-confirmed HBV infection should not be vaccinated. The clinician should request documentation, but vaccinate if the patient is unsure of their vaccination or disease history.

Documentation of vaccination:

When vaccination is offered, the employee should be given a written record of vaccine receipt with the dose number, type of vaccine, date, volume site and route of administration noted. They should be told what the injection was, and when to return in order to complete the primary series. They should be reminded to keep the record for their entire life as they will be asked for it if injured or if they work in a position with blood and body fluids.

Routine Antibody Testing after Vaccination:

Ideally an antibody testing should be conducted after vaccination to verify immunity of the employee. Approximately 90% of persons will be protected after receipt of 3 doses, but the rate of seroconversion decreases with age.

Approximately 95% of adolescents may seroconvert after receipt of three appropriately scheduled doses of vaccine; 90% of adults under 60; and 75% of adults over 60, and a median of 64% of hemodialysis patients will seroconvert⁶. HIV positive persons may have lower levels of seroconversion, if CD-4 counts are low.⁷

If employees wish to verify immunity, a blood test 1-3 months after receipt of the third dose of vaccine can be done to check hepatitis B antibody (HBsAB) titers. If the testing is done later, it will not distinguish between protected and unprotected vaccinees. Some persons may develop protective levels of antibodies but later experience a decline in titers below 10IU. However they remain protected. Other persons will be unprotected, 'non-reactors' to the vaccine. They do not develop adequate titers and remain unprotected after three doses of vaccine. They are susceptible to infection if exposed later.⁸ Non-reactors to the primary series should repeat vaccination with an additional 3 doses of vaccine with the same schedule. The test date, results and record of receipt of a second series of vaccines should be kept as part of the employee records, and the employee should be instructed to keep the information and provide it to future employers. In the event of a needle stick or exposure, the person assessing the incident should be informed that the employee did not develop protective antibodies after vaccination, has been vaccinated twice, and that two doses of HBIG is recommended if the source patient is positive for hepatitis B surface antigen (HbsAg+).

Employers should send reminders for the second and third doses and track follow-up.

On the vaccination card given to the employee, note the date that the next dose is due.

The week before the vaccine is due, the employer should send the employee a reminder. If possible, if the employee is on site and doesn't appear, the employer should go to the unit and give the vaccine and a vaccine record. The importance of hepatitis B vaccine merits the effort.

There is no recommendation for a booster dose for hepatitis B vaccine

There is no recommendation for a routine booster. Protection in immuno-competent persons lasts for decades, and falling titers in years post-immunization are not evidence of susceptibility.⁹

Vaccination history is not considered protected information

Employers should maintain records of person who have completed three doses of Hepatitis B vaccine in an area accessible to the person who evaluates occupational exposures.

Vaccination is a condition of employment, not treatment for a health condition and is not considered protected health information and may be shared with employers and others who have a need to know without requesting written permission. However, none of the employee's other health information or testing results should be disclosed.

3.2.6 TRACK RATES OF COMPLETION OF HEPATITIS B VACCINATION BY FACILITY

Rates of completed hepatitis B vaccination are an important indicator of occupational health programs. Examples of quality indicators and a sample report are shown below.

Quality indicator: number and percentage of persons in the facility who stated they have completed 3 doses of Hepatitis B.

Alternate quality indicator: number and percentage of persons in positions exposed to potentially infectious materials who have completed 3 doses of Hepatitis B vaccine or are immune.

Table 3: Facility Quarterly Hepatitis B Vaccination Report

**Ministry of Health and Social Services (MOHSS)
Facility Quarterly Hepatitis B Vaccination Report**

Name of facility: _____

District: _____

Region: _____

Month/Year: _____

| Indicator | Number | Percentage |
|--|----------|--------------|
| Total number of employees | | N/A |
| Number of employees in positions exposed to blood and body fluids | 65 | N/A |
| Number of employees in positions exposed to potentially infectious materials who have completed 3 doses of Hepatitis B vaccine or are immune | 54 | =54/65 (83%) |
| Number in exposed positions with fewer than 3 doses of vaccine and no documented history of HBV infection | 11 | =11/65 (17%) |
| Number in exposed positions who refused vaccine | 6 | =6/65 (9%) |
| Number of employees immunized against hepatitis B this quarter | 1st Dose | 12 |
| | 2nd Dose | 6 |
| | 3rd Dose | 4 |

3.2.7 PROVIDE SUPPLIES AND STAFFING NECESSARY FOR SAFE CARE

HIV, Hepatitis B, Hepatitis C and other blood-borne pathogens can be transmitted by contact with items and surfaces contaminated with invisible quantities of blood. Equipment that is used on invasive procedures is most likely to transmit infections. For that reason, it is important that:

- Devices used for invasive procedures or “normally sterile” parts of the body need to undergo sterilization between uses.
- Devices used in contact with mucous membranes that cannot be sterilized should undergo high level disinfection before reuse.

Contaminated devices and supplies used in contact with intact skin need to be cleaned of all visible dirt and debris and undergo disinfection before reuse. For example, maternity apron are exposed to large amounts of blood, they need to be either single use, or laundered between use by machine with detergent, and sodium hypochlorite or an equivalent product between uses.

It is the employer’s responsibility to ensure that procedures for reprocessing are defined, and the materials, equipment, personal protective equipment, indicators and logs for sterilization and reprocessing are present and used.

When a facility is considering adding a new preventive, diagnostic or treatment procedure, budgets should include the cost of safe care, not just the costs of the piece of equipment. The true costs include the expenditures for personal protective equipment, consumable supplies, reprocessing, repairs, preventive maintenance and medical waste. If the resources will not be available to do the procedure safely, the facility should not begin to offer the new service.

The employer must provide the safety equipment and supplies necessary at least to meet minimal standards without compromising quality or efficacy of care. This includes the quantity of safety boxes, disinfectants, antiseptics, PPE recommended by Occupational Health and Safety legislation, cleaning equipment, water, and brushes necessary for cleaning. Nor is it acceptable to substitute inferior quality of PPE or products that do not protect workers from their occupational hazards.

Employees who could not follow recommended safety procedures because adequate staffing or safety supplies were not made available by the employer should be eligible for compensation in the event of exposure or injury.

3.2.8 USE SHARPS CONTAINERS TO PREVENT NEEDLESTICKS AND INJURIES FROM SHARPS

The employer is responsible to ensure that an adequate supply of leak-proof, puncture-resistant safety boxes are available at the point of use (when safe) for the disposal of sharps. Sharps containers are an important measure to prevent sharps-related injuries, and are far more cost effective than the provision of PPE alone.

Sharps containers should be closed and removed for destruction when they are $\frac{3}{4}$ full in order to avoid overfilling. That may lead to injury during disposal if the sharp needle tips are at the opening or puncturing the sides. (See the National Infection Control Guidelines.) Eliminate reuse of contaminated equipment and supplies on multiple patients

Body fluids on shared equipment and in multi-dose vials can spread disease. The risk of disease transmission in order of highest risk to lowest risk occurs with 1) the equipment and rugs used for invasive, skin piercing procedures, 2) for equipment in contact with intact mucous membranes (nasogastric tubes, eating utensils, rigid scopes, suction tubing, nasal and vaginal specula, etc), and 3) with equipment in contact with intact skin. Experience in the US with drug resistant germs such as MRSA has shown that items that merely touch skin may transmit germs between patients that may later result in infections. These items typically need to be cleaned of all visible dirt and wiped with a disinfectant but do not need to be sterilized or undergo high level reprocessing. The risk of bacterial spread is greater than the risk of transmission of blood borne pathogens.

Measures that employers may institute to reduced the risk of infection:

- provide single-use equipment in adequate quantities
- use syringes with re-use prevention features for injections (note: other syringes will be needed for non-injections)
- use syringes with safety features such as retractable needles or needle covers to reduce the risk of needlesticks
- use single dose vials
- establish systems that separate clean and dirty equipment
- clean eating and cooking utensils with a sanitary rinse for 10 seconds of sodium hypochlorite and allow to air dry (50 PPM in hot water, 100 PPM in colder water)¹⁰
- label equipment that has undergone reprocessing, and monitor reprocessing and sterilization with indicators and active supervision
- provide training, in-services and supervision or to staff involved with sterilization and reprocessing
- dedicate sufficient space, water, and supplies such as brushes, racks with handles, and detergent to the reprocessing area

Sample quality indicator: all sterile equipment is labeled with indicator tape.

4. SECONDARY PREVENTION:

EMPLOYERS' RESPONSIBILITIES FOR PROVIDING PEP

PEP requires good management of inventory, staff training, communication, and confidentiality. Procedures must be put into place beforehand with input from impacted departments. To prepare for PEP-related services, employers should plan and implement the following:

- Twenty-four hour access to rapid HIV testing
- Access to Hepatitis B testing
- Clarify billing and reimbursement so staff do not pay
- Access to PEP medications, current guidelines and contact info for ARV experts for consultation
- Provide a stock of HBV vaccine and HBIG, while avoiding freezing or damage from excessive temperature exposures
- Streamline paperwork, and prepare packets of required forms in advance
- Enforce norms of confidentiality for employees
- Maintain a schedule of clinicians responsible for managing exposures that provides coverage on weekends and nights, with ARV expert back-up.
- Prepare information sheets for those exposed
- Train staff in the procedure and whom to contact in the event of exposures
- Manage an injury surveillance system to identify and mitigate preventable hazards
- Report summaries of exposure reports

4.1. PROVIDE ACCESS TO RAPID HIV TESTING

Because use of rapid HIV tests can eliminate the need for HIV PEP in more than half of the exposures, it is important that employers make testing available.

Health care facilities that have overnight beds and/or provide deliveries should ensure that staff members who can conduct rapid HIV tests are on site during all shifts, including during vacations.

Small health care facilities, and employers in other industries who have employees in positions exposed to blood and body fluids, should identify the nearest site (such as a hospital) that can provide Hepatitis B and HIV rapid testing, and PEP 24 hours a day and on weekends. Arrangements should be made in advance to provide post-exposure testing and treatment. Employers should provide transportation to the site of care for the source patient/person at no cost to the employee.

Remote rural health care facilities without immediate access to external care may decide to keep HIV rapid test kits and PEP prophylaxis on site so follow-up can be begun immediately after injury and always within 72 hours of exposure. Whenever possible, employees should be encouraged to notify an occupational health professional, by phone or radio, prior to initiating self-testing and treatment.

Baseline testing of employees at the time of the exposure is also needed to establish eligibility for compensation for HIV acquired on the job, and also to arrange for care for HIV positive employees.

Facilities with a low usage of rapid HIV tests and/or PEP should rotate supplies to other facilities with a higher volume of use, preferably months prior to expiration.

4.2. PROVIDE ACCESS TO HEPATITIS B TESTING

Hepatitis B testing is needed primarily for two reasons:

- To establish an employee's eligibility for compensation for HBV infection acquired on the job.
- To test the source patient. If the source patient is not infectious (HBsAg-), HBV post exposure prophylaxis PEP is not necessary.

It is desirable to have HIV and Hepatitis B testing done at the same site to simplify care and confidentiality. Hepatitis B rapid tests are not available, and venous blood draw will typically be necessary to test the blood.

4.3. PROVIDE ACCESS TO PEP MEDICATIONS, CURRENT GUIDELINES AND ARV EXPERTS

Recommendations for Antiretroviral (HIV) therapy, including HIV PEP, are issued by the MOHSS Directorate of Special Programmes. Copies of the current recommendation and the current HIV PEP medications should be kept available for employee use, regardless of the time or day of the week. Medications used for employee PEP should always be logged out so their usage can be tracked, though the name of the person can be coded to protect confidentiality.

Because ARV medications pose risks to employees, and their selection for use is complicated by existing co-morbidities, pregnancy and resistance patterns, the facility should identify an expert in ARV therapy familiar with the national guidelines who agrees to be available by telephone around the clock for consultation. The ARV contact information should be posted with persons responsible for evaluating exposures and prescribing PEP.

4.4. STREAMLINE PAPERWORK

PEP follow-up involves multiple consents, medical reports, incident reports, log books and other paperwork. It is recommended that efforts be made to standardize and minimize paperwork, and to help keep the identities of employees confidential whenever possible.

It is recommended that facilities prepare packets of the forms and information sheets in advance.

4.5. ENFORCE NORMS OF CONFIDENTIALITY FOR EMPLOYEES

In 2010, employees are reportedly still not confident that their co-workers will respect them and their privacy. In many settings, management of post-exposure requires the employee to visit many different settings.

It is the responsibility of the employer to establish a system requiring the fewest number of visits and persons to improve confidentiality. Careful use of codes, not names, on laboratory request forms and registers may protect employees. Employers should sanction employees who disclose private information and note this in their permanent file. Gossip is disrespectful and contributes to a climate of secrecy that causes people to avoid testing, thus harming all Namibians and their right to care for HIV.

4.6 SCHEDULE COVERAGE ON WEEKENDS, NIGHTS AND DURING VACATIONS

There should be a designated staff person/s who is responsible for assessing and managing exposure incidents at all times. The name, contact information and location of the person, and a back-up resource should be known to employees and posted in places available to all staff and supervisors.

4.7 PREPARE EDUCATIONAL MATERIALS

During a stressful event, most persons do not remember important information. Written information may help employees follow through on treatment recommendations and keep appointments. Materials prepared in advance also help staff provide consistent and complete information. Written information could describe:

- Risks of developing infection
- Importance of undergoing baseline testing to ensure that HIV positive employee get appropriate care,
- The importance of avoiding PEP if the source patient is negative,
- The need for baseline testing for the employee to be eligible for compensation if an infection is acquired due to employment
- Recommendations for follow-up care including drug therapy, return visit in 3 days, follow-up testing at 6 weeks, 3 months and 6 months and when the person develops a febrile illness or signs of hepatitis
- The importance of taking all HIV PEP medications for 28 days and whom to contact if they wish to discontinuing therapy
- Common side effects of ARV medications
- Contact information for emotional support
- The need to avoid blood donation, pregnancy, sharing razors or needles, and the need to use condoms or abstain from sex until completing follow-up testing at 6 months
- Information to tell sex partners and/or help available for a family discussion of events
- Dates of follow-up appointments, and where and when to return (onset of febrile illness, etc.), including appointments for HBV vaccine and HBIG if appropriate.
- The forms to complete for Social Security Commission (for compensation)
- Rights of employees

4.8 TRAIN STAFF WHOM TO CONTACT IN THE EVENT OF EXPOSURES

- Train staff what to do in the event of a needlestick or exposure to blood and body fluids.
- Display the procedure throughout the facility.

4.9 MANAGE AN INJURY SURVEILLANCE SYSTEM TO MITIGATE HAZARDS

Information from supportive supervisory visits can be used to identify and correct common hazards before they cause injuries.

Information from reports of employee exposures can also help identify common problems that need to be prevented.

For compensation purposes, use of a standard national form shown in Annexure 2 is required.

4.10 SHARE AND DISCUSS SUMMARY REPORTS

Supervisors should prepare summary reports for management and Occupational Health officials so that occupational infections and injuries can be reviewed at least annually. It is also helpful to track if HBV and HIV PEP are being administered effectively. Indicators can include:

- The number of employees in positions exposed to blood and body fluids at the beginning or end of the year.
- The number and percentage of employees in positions exposed to blood and body fluids who are susceptible to HBV.
- The number of exposures to blood and body fluids per year by device, type of exposure, and procedure
- The number of employees sexually assaulted on the job, or coming to and from work per year
- The number of persons who developed HIV, HBV, or HCV after occupational exposure by type of infection per year.
- The number of people who were given HBIG per year.
- The number of people who were started on HIV PEP per year.
- The number of people who completed HIV PEP per year.
- Number and percent of cases in which HBIG was given according to guidelines.
- Number and percent of cases in which PEP was given according to guidelines in a year (e.g. source patient HIV positive or unknown, and the exposure patient known to be HIV negative.).

5. CLINICAL MANAGEMENT OF EXPOSURES TO BLOOD AND BODY FLUIDS

5.1 PROVIDE FIRST AID

Provide first aid to the exposed person. Wash the exposed site with soap and water. If eyes or mouth are exposed, rinse them thoroughly with clean water, until all body fluids have been removed. Do not use harsh disinfectants or products that may cause additional irritation. No evidence supports the practice of squeezing or encouraging bleeding at the site.

If the exposure was due to sexual assault, follow the procedures in Section 6.0. If prosecution is desired, the police will need to gather evidence, before showering or removing clothes except when as necessary for emergency care.

5.2 NOTIFY THE SUPERVISOR

After an exposure to the eyes, mouth, non-intact skin or percutaneous exposures with a used sharp, the employee should notify their supervisor immediately and request permission to contact the person designated for occupational exposures. The sooner prophylaxis is given the more effective it may be, so supervisors should release employees from their duties as soon as it is safe to do so.

5.3 ASSESS THE EXPOSURE

Have the designated clinician/staff assess the exposure.

- Was there a significant exposure to body fluids potentially infected with HIV?
- What is the source patient's status for HIV, HBV and HCV?
- Is the exposed employee immune to Hepatitis B, HCV, tetanus or infected with HIV prior to the exposure?

Note that PEP should not be offered if the source patient is HIV negative.

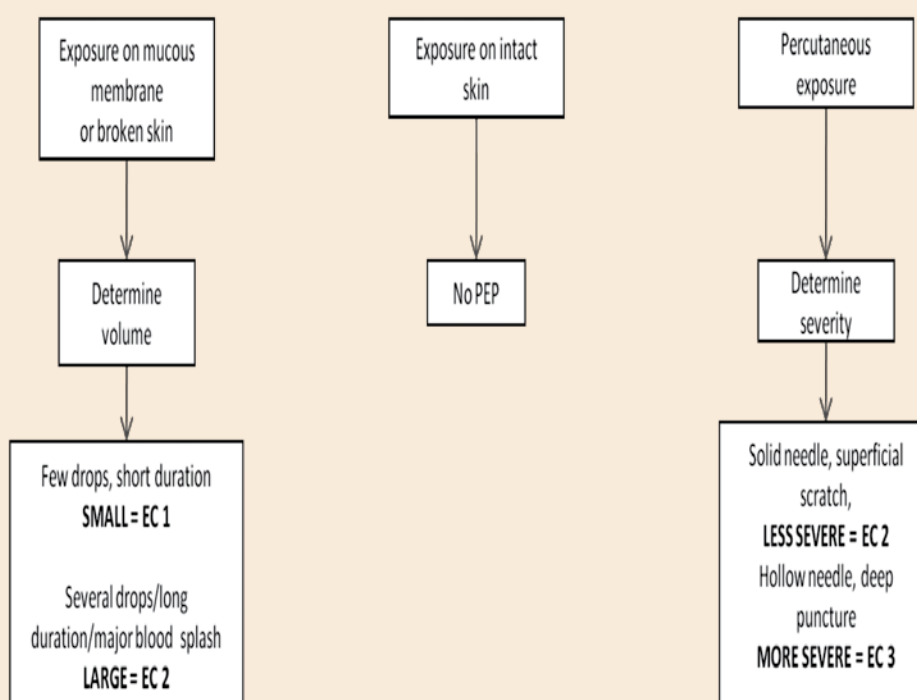
Table 4: Summary of Recommendations for Occupational Exposure to Body Fluids

| Recommended post exposure management by risk category and specific pathogen Risk category ¹¹ | HBV* | HCV† | HIV§ | Tetanus |
|---|-----------|---------------------------------|-----------|-----------|
| Category 1. Penetrating injuries or non-intact skin exposures¶ | Intervene | Consider testing source patient | Intervene | Intervene |
| Category 2. Mucous membrane exposures | Intervene | No action | Intervene | No action |
| Category 3. Superficial exposure of intact skin | No action | No action | No action | No action |

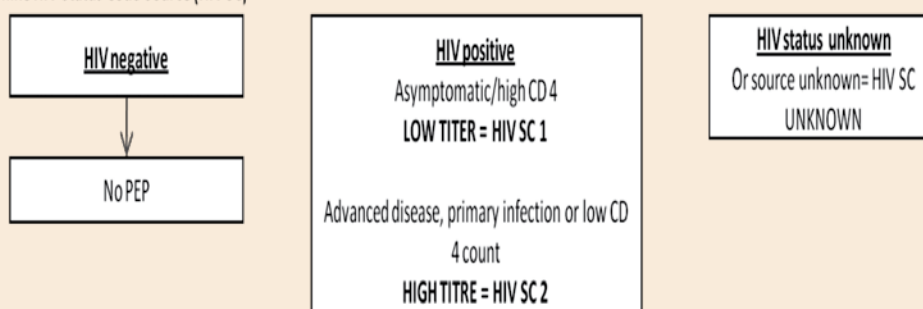
| | | | | |
|---|-----------|-----------|-----------|---|
| Category 4. Exposure due to sexual assault | Intervene | No action | Intervene | Intervene if perforating injuries, contaminated wound |
|---|-----------|-----------|-----------|---|

The designated person gathers the following information to determine if the exposure is significant

Step 1: Type of Exposure – Determine the Exposure Code (EC)



Step 2: Determine HIV Status Code Source (HIV SC)



Step 3: Determine PEP Recommendation from EC and HIV SC

| HIVSC | EC | PEP Recommendation |
|---------|----|---|
| 1 | 1 | PEP may not be warranted |
| 2 | 1 | Consider basic regimen |
| 1 | 2 | Recommend basic regimen |
| 2 | 2 | Expanded regimen recommended |
| 1 or 2 | 3 | Expanded regimen recommended |
| Unknown | | Where EC is 2 or 3 and a risk exists consider PEP Basic Regimen |

5.3.1 LOCATION AND DISEASE STATUS OF THE SOURCE PATIENT

Rationale: It is important to locate the source patient and delay discharge until the need for testing can be discussed with him/her. The clinician may also wish to verify if the laboratory has a blood sample available from the patient, or if an additional specimen will need to be drawn before the patient leaves the facility. If the source patient's disease status is not known, then a discussion of informed consent will need to occur to authorize testing and the release of results to the exposed employee. It is not necessary or appropriate to give the source patient the name of the exposed individual.

The clinician should ask if the exposed person knows if the patient is HIV positive, HBV positive, has elevated liver enzymes, hemophilia, has had high-risk sexual partners, is undergoing dialysis or is receiving ARV medications. If the patient has HIV, it is helpful to know if he or she is in the late stages of disease.

Rationale: Caregivers may know patient's clinical status from caring for the patient. Late stage patients may have higher viral titers and may be more infectious. If the employee does not know this information, the patient will need to sign a consent form if they agree to have the information disclosed.

If the source patient is on Anti Retroviral medications (ARVS), record which ARVs has the patient been exposed to.

Rationale: Patients with drug resistance may require selection of a non-standard PEP regimen, and the clinician may want to consult with an expert in ARV drugs.

5.3.2 INFORMATION ABOUT THE INCIDENT THAT INCREASES THE RISK OF DISEASE

Was the body fluid infectious for HIV? Blood, fluids or tissues containing blood, semen, vaginal secretions, cerebrospinal fluid, synovial, pleural, peritoneal, pericardial and amniotic fluids can transmit HIV infection.

Did the exposure pierce the skin (percutaneous), contact mucous membranes such as the mouth or eyes, or remain on non-intact skin?

Rationale: PEP for HIV or HBV is only needed for susceptible persons who have had exposures to infectious body fluids by percutaneous, or mucous membrane or non-intact skin. The highest risk of infection is to persons with percutaneous exposures from HIV, or HBV positive sources. Risk of HIV from HIV positive sources are 0.3% for needlesticks (95% CI 0.2%- 0.5%); and from mucous membrane contact 0.09% (95% CI .006 – 0.5%). Risks from HIV positive + blood on non-intact skin are even less¹² but not reliably quantified.

Was the instrument a hollow-bore needle?

Did the instrument have visible blood on it, or was it used in a blood vessel?

Was the injury deep or shallow?

Rationale: The volume of blood transferred is higher for hollow instruments used in blood vessels; visible blood helps verify that an instrument was used. Research showed that the odds of developing HIV infection after percutaneous exposure to HIV+ blood were:

- 16.1 time higher for a deep injury (95% CI 6.1-44.6),
- 5.2 times greater when blood was visible on the device (95% CI 1.8-17.7),

- 5.1 time greater when the sharp had been in a vein or artery (95% CI 1.9-14.8)
- 6.4 times greater when the source patient was terminally ill with AIDS (95% CI 2.2 - and 18.9).¹³

The clinician should assess the part of the body exposed to body fluids to assess for puncture wounds, sores, lesions, rashes or non-intact skin.

5.3.3 ASSESSING THE EMPLOYEE'S HBV STATUS:

Document how many doses of HBV vaccine the employee received and their history of antibody testing. The information to record is shown below.

| |
|--|
| <p>Vaccinated against HBV prior to exposure?</p> <p>◇ Yes, written records available</p> <p>◇ Yes, no written record available</p> <p>◇ No</p> <p>Number of doses of primary series (circle one):</p> <p>None Birth dose 1-dose 2-dose 3-doses Unknown</p> <p>Was the antibody level tested?</p> <p>◇ Yes</p> <p>◇ No</p> <p>If tested, result and date: _____</p> <p>Number of doses received after post titer testing if < 10 IU.</p> |
|--|

Rationale: Employees with fewer than three doses of HBV are considered non-immune. If the person received three doses of HB vaccine by oral report or written record, they will be considered immune unless they have a laboratory test result showing < 10 IU. Immune persons do not need further HB vaccine or HBIG. Non reactors will need to have HBIG after exposure.

5.3.4 ASSESS THE NEED FOR TETANUS VACCINE OR TETANUS IMMUNOGLOBULIN

Persons who have had at least 3 doses of tetanus vaccine, including childhood DPT vaccine AND who received a dose in the last 10 years do not need further tetanus immunization after a workplace exposure. Victims of sexual assault who may have contaminated wounds and/or peritoneal perforation can be vaccinated if their last booster dose was more than 5 years ago. Refer to the guidelines in Table 5 below. However, if tetanus is a concern TIG will be needed to prevent infection.

Table 5: Summary of Tetanus Wound Management

| Vaccination History | Clean minor wound | | All other wounds | |
|-------------------------------|-------------------|--------|------------------|--------|
| | TT | TIG*** | TT | TIG*** |
| Unknown or fewer than 3 doses | Yes | No | Yes | Yes |
| 3 more doses | No* | No | No** | No |

TT means give a tetanus containing vaccine. TIG refers to Tetanus Immune Globulin

*Yes if more than 10 years since the last dose

**Yes if more than 5 years since the last dose

***the dose of TIG that is recommended is 250 units IM for adults and children.

Reference: <http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/tetanus.pdf>

If TIG and vaccines are administered, separate syringes should be used. The dose for Tetanus Toxoid vaccine for adults is 0.5 ml IM in the deltoid. TIG should be administered IM near the wound, and the Tetanus containing vaccine (0.5 ml TT or Td) should be administered IM at a separate site.

5.3.5 IS THE EMPLOYEE PREGNANT OR BREASTFEEDING? IF SO, WHICH TRIMESTER?

During the assessment, determine if the employee is pregnant or breastfeeding.

Rationale: Some PEP medications such as Nevirapine, Efavirenz (avoid first trimester) and Abacavir are not indicated for pregnant women. Tetanus vaccine, HBV vaccine, and H-BIG are safe for pregnant women¹⁴.

If the employee is not pregnant and has had a significant exposure, she should be advised to use an effective contraceptive method for the next 6 months to avoid pregnancy. Methods such as IUDs have high effectiveness rates and will not add to the risk of nausea from PEP.

5.4 CONSENT AND TEST THE SOURCE PATIENT AND EXPOSED EMPLOYEE

The employee and source patient should sign written consents authorizing permission to test them for HIV, HBV and HCV status. The source patient should give permission for the information to be shared with the exposed person, those managing their care and to those authorized by law, including the Social Security Commission.

If the source patient is not able to consent, the current practice is to contact the medical superintendent who may authorize testing.

If the source patient does not consent to testing because he/she does not wish to have blood drawn, but does have blood available in the lab, the designated clinician should ask if he or she consents to have existing blood tested.

PEP should not be given if the exposed employee refuses to undergo baseline testing, or does not wish to have PEP. PEP involves both considerable risk and cost and should not be begun unless necessary. If begun, PEP should be closely monitored, including follow-up for symptom management, and testing. HIV positive persons should be discouraged from using PEP and instead be counseled confidentially and helped to seek care that is more appropriate for their disease state.

The clinician should ask the employee why they do not wish to undergo testing, and if lack of confidentiality is the reason, the clinician should identify a testing site that the employee perceives to be trustworthy.

5.4.1 PRESCRIBE PEP FOR SIGNIFICANT EXPOSURES IF TESTING IS NOT AVAILABLE

If testing is not immediately available at the facility but the employee is willing to be tested, a starter pack of PEP should be made available to employees with significant exposures. HIV, HBV, and HCV testing should be done when available.

5.4.2 LABORATORY TESTS FOR THE SOURCE PATIENT:

If prior test results are not available, or if more recent testing is desired for persons who previously tested negative, the clinician should consent the source patient and arrange for rapid HIV testing, and hepatitis B surface antigen testing, and if available, HCV antibody testing.

The laboratory results should include the name of the facility and the telephone of the clinician to be informed of the results as soon as they are available.

If the source patient is negative, follow-up testing to see if the patient is in a “window” period is NOT recommended.

Laboratories should process the tests as a priority and communicate the results to the ordering clinician or to the person indicated on the laboratory forms.

5.4.3 LABORATORY TESTS FOR THE EXPOSED EMPLOYEE:

The employee should be tested for hepatitis B core antibody (HBcAB) and hepatitis B surface antibody (HBsAB) to detect prior infection (HBcAB positive) or immunity due to vaccination (HBcAB negative; and HBsAB positive). The employee should be tested for HIV with a rapid test. If HIV negative, repeat testing should be done at 6 weeks, 3 months and 6 months. The clinician should record all results in the medical report and the communicate results to the employee.

If PEP will be given to the employee, specimens for a full blood count, creatinine clearance or urea (to assess kidney function), and ALT (to assess liver function) should be obtained to establish a baseline.

Female employees who have had unprotected intercourse since their last menses should have a pregnancy test done and be informed of the risks of PEP to fetuses.

If laboratory tests for HBV are to be done, they should be drawn before hepatitis B immunoglobulin (HBIG) and hepatitis B vaccination (HBV) are given.

To respect confidentiality, the results should be forwarded to the ordering medical officer or the staff designated to manage post-exposure follow-up.

Baseline testing is important since the employee who develops a disease will need to prove that they were uninfected at the time of the incident before compensation can be awarded.

5.5 SELECT A PRELIMINARY PEP REGIMEN: TWO DRUGS, THREE DRUGS OR NO DRUGS

If rapid testing is not available, and other test results will not be available within hours, the clinician assesses the exposure and makes a recommendation for PEP or no PEP without waiting for the HIV lab results. If the employee has a significant exposure and the source patient is HIV positive or the patient’s status is unknown, start PEP. PEP can be discontinued when the laboratory results return.

The basic two drug PEP regimen is prescribed except in the conditions below. Note that adherence may be better with two drug PEP since two drug combinations have fewer side effects.

Pep should be initiated as soon as possible, ideally within 1-2 hours. PEP is probably not effective when started later than 24-36 hours and should not be offered more than 72 hours after exposure.

If necessary a “starter pack” of three days of PEP treatment can be provided after hours until a full course is available. However, studies have documented that adherence is worse when starter packs are given.

If PEP is recommended and the employee declines, this should be documented in the medical record of the employee and countersigned by the employee. The exposed health care worker has the right to decline PEP without risk of losing eventual compensation if occupational infection later develops.

5.5.1 WHEN HIV PEP IS NOT RECOMMENDED

PEP should **not be offered** after exposure to low risk body fluids (e.g. urine, vomit, saliva, faeces) unless they are visibly bloodstained.

PEP should **not be offered** when testing has shown that the source is HIV negative, or when risk assessment has concluded that HIV infection from an unknown source is highly unlikely.

PEP should also **not be offered** if the exposed health care worker tests positive for HIV at the time of the occupational exposure. PEP IS A PREVENTIVE MEASURE FOR OCCUPATIONAL EXPOSURE. IT IS NOT A TREATMENT FOR HIV-RELATED ILLNESS OR AIDS.

5.5.2 RECOMMENDED POST EXPOSURE PROPHYLAXIS REGIMENS

Basic Regimen (two drug)

TDF 300 mg orally PLUS 3TC 300 mg in a fixed dose orally for 28 days.

(Tenofovir 300 mg daily plus Lamivudine 300 mg fixed doses combination once daily by mouth for 28 days)

Expanded Regimen (three drug)

TDF 300 mg orally PLUS 3TC 300 mg orally for 28 days.

Plus Lopinavir 400 mg orally and ritonavir 100 mg orally twice daily.

If the employee cannot tolerate the side effects of nausea, vomiting and diarrhea, then Efavirenz 600 mg orally once nightly can be used unless the person is pregnant.

When to consider three drug PEP regimens

The algorithm on page 43 shows the assessment for the volume of blood, route, and titer status of the patient, and suspected resistance for which the MOHSS would recommend consideration of three drug PEP regimens. These are summarized below:

LARGE SPLASH FROM HIV POSITIVE PATIENT EXPECTED TO HAVE A HIGH VIRAL LOAD: If the splash to mucous membranes or non intact skin involved a large splash, was present on the skin for a long duration AND the source patient was known to be HIV positive AND was in primary infective phase, advance disease or with a low CD4 count and thus expected to have a high viral titer, 3 drug PEP regimens should be considered.

OR

DEEP OR HOLLOW NEEDLE WOUND FROM HIV POSITIVE PATIENT: The exposure was a deep puncture or from a hollow needle AND the source patient was known to be HIV positive

OR

ARV RESISTANCE LIKELY: The HIV positive source patient has been on several ARV regimens; consult an HIV specialist for the best regimen. Take the patient pregnancy status into account when selecting other medications.

Taking this information into account, the designated staff handling occupational exposures should recommend a preliminary prophylaxis plan and coordinate the laboratory testing, counseling, provision of medication and follow-up.

5.6 DECIDE IF HEPATITIS B PROPHYLAXIS IS NECESSARY

If the exposed employee has received 3 doses of hepatitis B vaccine, he/she should be considered immune and no follow-up is needed.

If the employee was tested after the third dose and had a titer of less than 10 IU they should be considered susceptible or “unvaccinated” for purposes of follow-up, unless they have documented seroconversion at a later date. Testing done more than 6 months after the completion of vaccination may result in a false negative result, because even immune persons will experience a decline in titers over time. However, if exposed they can mount a protective antibody response.

For purposes of follow-up, persons who were never tested after vaccination, AND those who were tested and who have had hepatitis B surface antibodies (HBsAB) titers of 10 IU or above after vaccination will be considered immune. Persons who were tested but never had a titer of 10 IU or above will be considered susceptible.

Table 5: Guidelines for Post-Exposure Hepatitis B Immunoprophylaxis of Unvaccinated and Susceptible Persons¹⁵

| Cause of Exposure to HBV Susceptible Person | | Action* |
|---|--|--|
| Discrete exposure to an HBsAg ⁺ -positive source | Percutaneous (e.g., bite or needlestick) or mucosal exposure to HBsAg-positive blood or body fluids that contain blood | Administer hepatitis B vaccine and hepatitis B immune globulin (HBIG)† |
| | Sexual or needle-sharing contact of an HBsAg-positive person | Administer hepatitis B vaccine and HBIG† |
| | Victim of sexual assault/abuse by a perpetrator who is HBsAg-positive | Administer hepatitis B vaccine and HBIG† |
| Discrete exposure to a source with unknown HBsAg status | Victim of sexual assault/abuse by a perpetrator with unknown HBsAg status | Administer hepatitis B vaccine† |
| | Percutaneous (e.g. bite or needlestick) or mucosal exposure to blood or body fluids that contain blood from a source with unknown HBsAg status | Administer hepatitis B vaccine† |

HBIG is administered 0.06 ml/kg in an Intramuscular injection. A separate site and syringe for vaccine and HBIG should be used. The vaccine dose depends on the manufacturer and formulation but is given IM in the deltoid.

***Non-responders who have received two courses of HBV vaccine should receive two doses of HBIG, one month apart.**

CDC. A comprehensive immunization strategy to eliminate transmission of hepatitis B virus infection in the United States. Recommendations of the Advisory Committee on Immunization Practices (ACIP). Part 1: Immunization of infants, children, and adolescents. MMWR 2005;54(No. RR-16).

5.7 COUNSELING EXPOSED EMPLOYEES ON THE RISKS AND BENEFITS OF HIV PEP

5.7.1 THE IMPORTANCE OF COUNSELING

Counseling is important to ensure that exposed employees have a realistic understanding of the risks and benefits of PEP. Employees may overestimate the risk of infection and often underestimate the side effects. After occupational exposures, the true risk of infection is low, and that the side effects of PEP are common and may be severe.

Common side effects for PEP to prevent HIV include:

Nausea, malaise, diarrhea, headache, pancreatitis (fatal and non-fatal), new diabetes mellitus, hyperglycemia, diabetic ketoacidosis, worsening of existing diabetes, dyslipidemia, nephrolithiasis (IDV), severe skin reactions including Stevens-Johnson Syndrome, toxic epidermal necrolysis, hepatotoxicity (nevirapine), and central nervous system side effects including dizziness, somnolence, and insomnia.

PEP medications can also interact with other medication the employee may be taking.

Because of these significant side effects, the employee has a right to refuse PEP. However, anti-nausea, anti-mobility medications or a change in regimen may help the employee tolerate severe side effects. Exposed persons should be invited to report back in three days to assess adherence, toxicity, and to offer emotional support for a stressful experience.

5.7.2 ASSESS THE SUPPORT AVAILABLE TO THE EMPLOYEE

At the three day visit or before, the clinician should assess what support the employee has, and ask them to return for a follow-up appointment to discuss laboratory results, tolerance of medication, and to answer further questions. Contact information should be noted so that the person can be reached if they fail to return. It is preferable if the same person conduct the follow-up visits unless the employee prefers to seek care from another, or more qualified counselors are available.

5.7.3 REVIEW INFORMATION WITH THE EXPOSED, SCHEDULE FOLLOW-UP APPOINTMENTS AND ANSWER QUESTIONS

Offer information in writing to employee about the following issues:

- Workers with occupational exposures to HIV should receive follow-up counseling and medical evaluation, including HIV-antibody tests at baseline and periodically for at least 6 months post-exposure (e.g., 6 weeks, 3 months, and 6 months).
- They should abstain or practice safe sex, avoid blood donation, sharing razors and toothbrushes or other instruments that break the skin.
- If they begin taking PEP they should return for drug-toxicity monitoring that should include a complete blood count and renal and hepatic chemical function tests at baseline and 2 weeks after starting PEP. If they cannot tolerate the side effects or if the laboratory results show toxicity, a change in drugs or dosing may be necessary. Further diagnostic studies may be indicated.
- If a febrile illness occurs they should return for further evaluation

5.8 DOCUMENTING SIGNIFICANT EXPOSURES TO BLOOD AND BODY FLUIDS

The documents to be completed, including the timelines and form names are summarized below:

Table 6: Documentation to be Completed

| Form completed by: | Form | Time period | Comments |
|--|---|----------------------|--|
| Exposed employee | Tells supervisor verbally -Incident reporting form for occupational exposure, with additional details as desired -Written Consent/Refusal for testing | As soon as possible | Reports without confidential information should be discussed locally to identify preventable factors. Baseline testing is necessary to rule out prior infection; since already infected staff need ARV care, not PEP. To be eligible for compensation for occupational infection, staff need to document that they are negative at the time of the incident. Hospitals may have own special forms. Separate the sharps injury form and the medical management forms so data can be discussed locally. |
| Supervisor | Signs - the Incident report -Employers report of Accident | | Supervisors should maintain complete confidentiality and not divulge the names of the injured employees or discuss information that identifies individual employees unless required by law or to provide the necessary care or follow-up. |
| Occupational health physician or Designated staff including nurse | -First medical report and account -Lab requests (nurse) -Prescriptions as appropriate -Follow-up report. -Immunization records (Nurse), -Reminder cards for vaccine and lab follow-up; -Appointment/referral forms for employee -Sharps or exposure reporting started by employee, | Within 2 hours ASAP | Initial assessment of the event should be done as soon as possible. Lab work and prescriptions may be provided with coded name to ensure confidentiality if desired Can he/she dispense medication? (lab returns results returned in envelope to home department) |
| Infection Control or Occupational Health Staff | -Final medical progress report -Annual reports about injuries and outcomes | 6 months Annually | Social Security Commission sends a form back to be completed. |

| | | | |
|-----------------------------------|--------------------------|--|---|
| Social Security Commission | Notification to employee | | Decides if the person gets compensation |
|-----------------------------------|--------------------------|--|---|

5.9 MONITORING AND FOLLOW-UP PLAN

All persons placed on PEP should be re-evaluated within 72 hours of their exposure. This allows for further clarification on the nature of the exposure, review of available source patient serologies, and evaluation of adherence to and toxicities associated with the PEP regimen.

The clinician should ensure that the employee is monitored:

- at two weeks with a full blood count ALT, creatinine clearance
- at 6 weeks, 3 months for HIV
- 6 months for HIV, and hepatitis B surface antigen (HBsAg)

Information should be shared as results become available, and the employee is offered physical and psychological support.

5.9.1 COMMUNICATION OF BASELINE LABORATORY RESULTS

The clinician or designated staff member should ensure that the results are given to the source patient and to the exposed employee.

If the source patient is HIV negative, or the employee positive for HIV, the PEP for HIV should be stopped immediately.

If the source patient is HBsAG+ and exposed employee is HBsAB negative, and HBV was not given previously, then the employee should receive the HBIG and/or HBV vaccine in accordance with the guidelines set forth in Table 6.

5.9.2 COMPLETION OF HIV TESTING AT SIX WEEKS, THREE AND SIX MONTHS

The employee should be reminded to come in for follow-up testing, and the results should be recorded in the medical file. Time should be made to inquire how the employee is coping, and to provide emotional/psychosocial support.

At six months the medical follow-up should be completed and sent to Social Security Commission.

Exposed persons should be tracked so the rates of persons who complete PEP and the outcome of the 6 month testing can be tracked and reported.

6. CLINICAL MANAGEMENT OF SEXUAL ASSAULT

6.1 DEFINITIONS

Chain of evidence: This refers to a process of obtaining, preserving, and archiving evidence that documents the movement of and access to samples in order to preserve their use as evidence in a legal case.

Rape: Is the “intentional commission of a sexual act under coercive circumstances”. The criminal justice system, not the health care providers, determines whether a rape has occurred.

Rape or sexual assault kit: A package of specimen collection materials, instructions and laboratory request forms used to gather evidence from persons reporting sexual assault at the time of their medical exam.

Sexual assault: The penetration of the mouth, anus or vagina of another without consent. The sexual assault is considered to have happened if a victim or witness reports it.

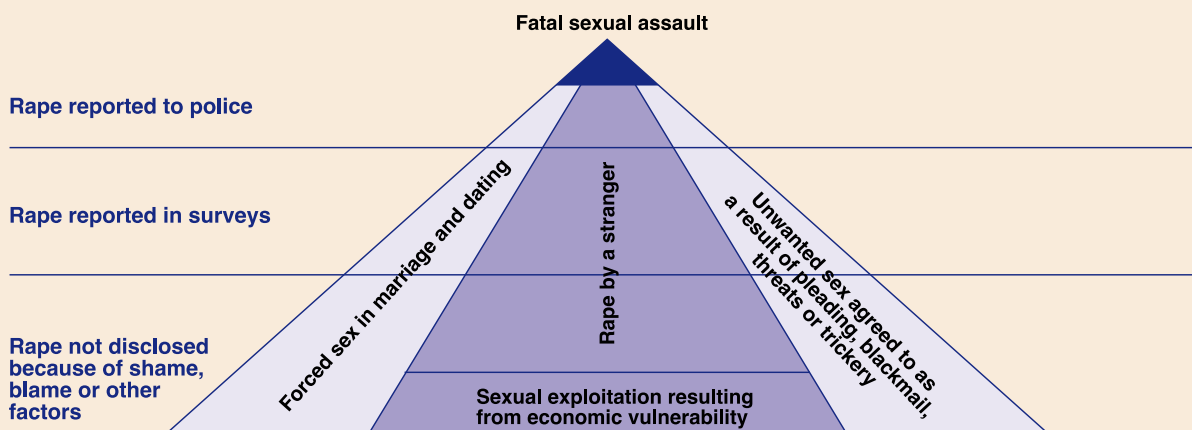
Survivor of sexual assault: Preferred term for the person who has been assaulted.

6.2 INTRODUCTION

Sexual assault that occurs to employees involved is not only occupational exposure, but also human rights violation and an abuse of power. In many countries 80-90% of the assaults happen to women and the remainder to men. Outside of the work setting, it is not uncommon to have half of all attacks to occur to persons under 18, with half of those occurring in children.

Figure 1: Magnitude of the Problem of Sexual Violence¹⁶

Magnitude of the problem of sexual violence



Just as to persons exposed to blood and body fluids in the workplace, survivors of sexual assault may be at risk for HIV and hepatitis B. But in addition, the survivor of a sexual assault may also be at risk of pregnancy and sexually transmitted diseases. Thus the recommendations for laboratory testing and preventive medications are broader in the six month follow-up period.

Table 7: Recommendations for Testing and Prevention after Exposures to Blood and Body Fluids

| | Sexual Assault | Needlestick or splash of blood and body fluids |
|--|--|--|
| First Aid | Do not wash until evidence gathered. Do measures to preserve life and prevent disability, then consult detectives regarding need to preserve chain of evidence. | Wash site with soap and water. Rinse eyes and mouth. |
| History Taking | Survivor’s description of event and post-event activity (showering, etc.) | Exposed detailed description of device, procedure, and contributing factors |
| Assessment | Done to determine plan for prophylaxis, safety, and to document evidence for court | Done to determine plan for prophylaxis |
| Forensic Evidence Gathering | Information gathered to document if person was uninfected at time of the sexual assault incident for compensation | Information gathered to document if person was uninfected at time of the sexual assault incident for compensation |
| Consents and Laboratory Testing | Survivor and attacker if known; Assailant also has a right to PEP if found within 72 hours of the attack. | Source patient and exposed |
| HIV Prevention | Priority | Priority if appropriate |
| STD Prevention | Most effective if done within hours of exposure, however exposed can be treated for infections later. STD prophylaxis may increase nausea and threaten successful HIV PEP | Not applicable |
| Consideration of Pregnancy Prevention, EC and Access to Abortion If Survivor Becomes Pregnant | Pregnancy is the most common result risk, Test to determine current status, need for emergency contraception, and ongoing contraception if given PEP. If the person is impregnated after the assault they have legal access to a safe abortion regardless of whether they accept E.C. PEP if necessary | Pregnancy testing if PEP is to be prescribed. Contraception to avoid exposure to fetus during six month follow-up, depending upon ARV regimen. |
| Follow-Up Steps | Follow-up HIV, HBV testing, PEP-related laboratory tests and counseling as needed. Document pregnancy status at end of follow-up. | Follow-up HIV, HBV testing, PEP-related laboratory tests and counseling as needed |

The management of sexual assault also differs in that the person seeking care, may not yet be safe if the perpetrator is a family member, supervisor, teacher or other person with social power who remains in the community.

Injured persons who do not feel safe may be ambivalent about testifying against the perpetrator. Survivors may first press charges but then ask to drop the charges when pressured by others who wish to accept financial compensation from the perpetrator.

The role of the health care worker is to support the patient to make informed choices about their follow-up care; it is not to solve a crime. A physician records the patient's description of events and documents the signs and symptoms found on a head to toe examination. Since a legal change in 2000 it is not necessary or appropriate to provide an opinion about what the person was wearing or to describe sexual activity prior to 72 hours before the assault. The physician establishes a plan for treatment, emergency contraception, HIV PEP, baseline and follow-up testing, STI PEP and counseling appropriate to the situation. A physician authorized by law to gather the evidence does so using a rape kit for forensic testing. Efforts should be made to release the person to a safe environment, and provide an advocate who can accompany them for subsequent visits.

It is the role of the criminal justice system to determine if a crime was committed or not, and to investigate. No one is guilty until proven guilty by the court of law.

Health care workers should strive to provide a sense of safety and compassion. Indifferent or judgmental care conducted without privacy or concern can increase the likelihood and severity of post-traumatic stress¹⁷. In a system with sensitive care welcome, the person is greeted immediately and not made to wait in the public waiting room. They are put into a private room with a closed door. Staff should respond with kindness, explain what is being done, arrange to have someone stay with the survivor, and keep the person warm and covered as much as possible during exams. If clothes are taken for evidence, substitutes should be provided. Facilities for a shower after evidence gathering, and even a cup of tea, may be much appreciated.

Confidentiality is part of providing a safe environment. Information should be shared only with those with a need to know. Staff members who divulge information or gossip should be sanctioned -- they may be putting a life at risk.

6.3 CLINICAL MANAGEMENT OF EXPOSURES TO BLOOD AND BODY FLUIDS AFTER SEXUAL ASSAULT:

The process is the same as for other occupational exposures as discussed in Section 5 with the additional exceptions as noted below.

6.4 FIRST AID

First aid should be provided to stabilize patients with severe, life-threatening injuries.

Measures to establish an airway, stop severe bleeding and restore circulation shall take precedence over gathering of forensic evidence. However, when stable, the patient should be escorted to the Women and Child Protection Unit where a physician can provide care and document evidence.

Explain to the patient that they should not douche or place liquid or substances in the vagina. Douching does not decrease the risk of HIV infection after sexual assault and increases the risk of PID and ectopic pregnancy¹⁸. There is no evidence whether Chlorhexidine glaciante in the vagina prevents HIV after sexual assaults.

6.5 NOTIFICATION OF WOMEN AND CHILD PROTECTION UNITS

A rape survivor should report as soon as possible to the nearest Women and Child Protection Unit (WACPU) or nearest police station (see table below). If possible, they should be escorted. WACPU's are established in all the 13 regions and usually attached to the state hospitals. The units are staffed,

when possible, with social workers, and detectives/investigators who work with physicians from the state hospital for medical management as well as collection of evidence. A list of the Women and Child Protection Units in Namibia is shown below.

| Women and Child Protection Units in Namibia | |
|--|--------------------------------|
| Center | Telephone number |
| Eenhana | 065 – 264200 |
| Gobabis | 062 – 566100 |
| Katima Mulilo | 066 – 253060 081 – 2698775 |
| Keetmanshoop | 063 – 221826 081 – 2554504 |
| Lüderitz | 063 – 203668 081 – 2458660 |
| Mariental | 063 – 240574 |
| Opuwo | 065 – 273483 |
| Oshakati | 065 – 2236056 |
| Otjiwarongo | 067 – 300600 |
| Rehoboth | 062 – 523223 |
| Rundu | 066 – 255209 |
| Tsumeb | 067 – 2235053 |
| Outapi | 065 – 251199 |
| Windhoek | 061 – 2095226 061 – 2095375 |

Persons assaulted on the job should notify their supervisor or workplace administration if possible.

It is helpful to let the survivor notify a person for support, transport and spare clothes. As family members may be involved in the assault, do not contact persons without the survivor's concurrence.

Trained Social Workers should be used, and pediatricians are preferred for children. This is because of the possibility of planting false information in the survivor's memory through leading questions. Use of information from untrained proponents and non-scientific therapies has led to false arrests.

6.6 ASSESSMENT AFTER A SEXUAL ASSAULT

The assessment starts with history-taking and the collection of evidence that may be lost or damaged in the process of later care. The examination, specimen collection and trace evidence collection should occur before the counseling for HIV, hepatitis and STI is done. All victims are required to report immediately to the nearby facility; reporting after 72 hours may lead to a loss or damage of evidence. Findings are documented on the J-88 form and shown in summary below. The physician should consult with the investigating officer to maintain the chain of evidence and to ensure that questions needed for investigation are included.

The clinician should explain the process to the survivor by speaking to the person, explaining that she or he can stop the exam at any time, and ask permission before continuing each part. Encourage the survivor to have a support person present.

The clinician examines the hands and forearms first, as this is least threatening. An examination table paper or newspaper is placed on the floor to catch trace evidence as clothing is removed. The clinician

never leaves the person exposed or uncovered. Clothes are placed into dry evidence bags (paper to prevent molding), and trace evidence is placed into separate evidence bag provided in the Rape Kit. Follow the instructions in the evidence kit.

Table 8: Description and Rationale for Information and Specimen Collection after a Sexual Assault

| | |
|---|---|
| Description of what occurred in the survivor's own words | The history will help guide evidence collection. |
| What did she/he do afterwards? | It is important to document if the person bathed, douched, brushed their teeth, showered, changed clothes, vomited, urinated, defecated, used mouthwash, disinfectant or alcohol gel since this will change the available evidence. |
| Did the person/s use a condom? | Gather swabs regardless for spermatozoa. |
| Was she given drugs or alcohol? | Detective/investigator may decide if specimens for toxicology should be taken (10 ml grey top tube). |
| In the last 72 hours had survivor had consensual sex with another partner? | Swabs may identify semen from partner(s) who will need to be excluded as suspect(s) |
| Date of last period | Used to help determine possibility of current pregnancy, which may alter PEP and STI prophylaxis |
| Is she currently menstruating? | Traces of blood can be transferred during the attack. The presence of blood matching the victims DNA or blood type on the attacker can be used as evidence. |
| Is she currently using contraception? If so, what kind? | This will influence the need for emergency contraception. A pregnancy test may be needed to rule out pregnancy. |
| History of three doses of Hepatitis B vaccine? | Previously vaccinated persons will not need prophylaxis. Unvaccinated persons should be offered vaccine ASAP to complete three lifetime doses. |
| History of three doses of tetanus vaccine and within the last 10 years? | Previously vaccinated and up-to-date persons will not need a booster dose of tetanus. See the treatment chart (Section 5.2.4) for abdominal perforation when TIG is indicated. Unvaccinated persons can begin vaccination. |
| History of HBC, HBV or HIV infection? | If a suspect is known and apprehended, the suspect is also entitled to PEP. Both parties should be consented. |
| Current medications or medical conditions? | May interfere with PEP selection. |

Table 9: Lab Tests for Post Exposure Management after a Sexual Assault

| Lab Tests for Post-Exposure Management after a Sexual Assault | |
|--|--|
| Urine Pregnancy Test | For evidence and to determine if pregnancy might be possible. |
| Full Blood Count | Baseline and two-week to track tolerance to PEP. If significant blood loss has occurred, more frequent monitoring may be needed. |

| | |
|--|--|
| Creatinine | Baseline and two weeks if taking PEP> |
| HIV Rapid Test | Baseline, after febrile episode, six weeks, three months, Six months. If positive refer for care. |
| HBsAB+ | Baseline and six months or if symptoms develop. |
| Hepatitis C Antibody | Baseline and six months or if symptoms develop. |
| ALT | Baseline and two weeks if taking PEP. |
| Syphilis (for evidence) | Negotiable; baseline follow-up not needed if prophylaxis taken. |
| Swab for semen in upper vaginal vault for spermatozoa, anus and rectum, mouth, thighs and vulva | As soon as possible but within 72 hours. Always gather specimens from all sites if possible. Generally four sterile cotton swabs from the vagina, two from cervix, two oral and two anal. Sterile gauze moistened with normal saline is used to swab vulva and thighs. All swabs should be allowed to air dry, and then labeled per instructions on the evidence kit. |
| UA for epithelial cells and blood | As soon as possible but within 72 hours for evidence. |
| Comb public hair and head hairs | Specimens should include bulb (pull or brush hair, don't cut). Comb pubic hairs for both survivor's hair and foreign hairs. |
| Trace evidence | If dirt, grass, glass or other debris is found or falls on paper, bag separately per evidence kit instructions. |
| Finger nail clippings and under nails | Bag per instructions |

6.7 RECOMMENDATION FOR CLINICAL FOLLOW-UP AFTER A SEXUAL ASSAULT

Management of exposure to HBC, HCV, HIV and tetanus is the same for survivors of sexual assault as for persons having occupational exposures to blood with the following exceptions:

HBV: Generally the HBV source patient/perpetrator is unknown, so if the exposed person has not received three doses of hepatitis B vaccine, he or she should be given one dose of vaccine right away and then vaccination continued until three doses have been received (excluding a birth dose) (see Table 6).

HCV: While the risk of HCV is considered to be very, very low with sexual exposure; risk may be higher if the attack involved multiple persons, the use of IV or intranasal drugs and shared drug equipment.

HIV: The risk of transmission varies per act, and is considered to be lower than for a percutaneous exposure. See Table 10 below for a description of the risk by route.

Table 10: Estimated Per-Act Risk for HIV by Exposure Route¹⁹

| Exposure Route | Risk per 10,000 exposures to an infected source |
|--|--|
| Blood transfusion | 9,000 |
| Needle sharing injection drug use | 67 |
| Receptive anal intercourse | 50 |

| | |
|---|-----|
| Percutaneous needlestick | 30 |
| Receptive penile-vaginal intercourse | 10 |
| Insertive anal intercourse | 6.5 |
| Insertive penile vaginal intercourse | 5 |
| Receptive oral intercourse | 1 |
| Insertive oral intercourse (on man) | 0.5 |

6.8 POST-EXPOSURE PROPHYLAXIS FOR HIV AFTER A SEXUAL ASSAULT

If the assault occurred in the last 72 hours, the recommended regimen is a three drug regimen*:

Tenofovir 300 mg plus lamivudine 300 mg (fixed dose combination) by mouth plus lopinavir 400 mg/ritonavir 100 mg twice a day after meals, by mouth for 28 days.

If the assaults have been ongoing, PEP may still be offered as long as the last event occurred in the last 72 hours.

(*National Guidelines for Antiretroviral Therapy, Third Edition July 2010.)

6.9 EMERGENCY CONTRACEPTION AFTER SEXUAL ASSAULT

Pregnancy should be ruled out, although limited evidence suggests that the pill used for emergency contraception will not harm an existing pregnancy⁴.

There are three choices for emergency contraception, levonogestrel, estrogen-progestin combinations or a copper IUD. If oral medications are desired, WHO recommends levonogestrel pills. Methods may be 60-90% effective for up to 120 hours but are most effective if used as soon as possible²⁰. A variety of regimens is shown in Table 11 on the following page.

6.10 CONTRACEPTIVE METHODS DURING THE FOLLOW-UP PERIOD

Persons should practice safe sex or abstain during the six month follow-up period for HIV testing.

If the exposed person takes HIV PEP, they should be aware that ARV medication can increase or decrease the bioavailability of steroid hormones²¹. Thus during PEP, condoms are recommended both to prevent HIV transmission and to help compensate for any reduction in the effectiveness of birth control pills.

Table 11: Emergency Contraception Regimens

| Regimen | Pill Composition | Common Brand Name | First doses (# of tablets) | Second dose: 12 hours later (# of tablets) |
|----------------|-------------------------|--|-----------------------------------|---|
| Levonorgestrel | 750 µg | Levonelle, NorLevo, Plan B, Postinor-2, Vikela | 2 | 0 |

| | | | | |
|---------------------------------|---|---|----|---|
| Levonorgestrel | 30 µg | Microlut, Mivroval, Norgeston | 50 | 0 |
| Levonorgestrel | 37.5 µg | Ovrette | 40 | 0 |
| Combined estrogen and progestin | EE 50 µg + LNG 250 µg or EE 50 µg + NG 500 µg | Eugynon 50, Fertilan, Neogynon, Noral, Nordiol, Ovidon, Ovral, Ovrán, Tetragynon/PC-4, Preven, E-Gen-C, Neo-Primovlar 4 | 2 | 2 |
| Combined estrogen and progestin | EE 30 µg + LNG 150 µg or EE 30 µg + NG 300 µg | Lo/Femenal, Microgunon, Nordete, Ovral L, RegevidonNorLevo | 4 | 4 |

EE = Ethinylestradiol; LNG = levonorgestrel, NG = norgestrel

Table taken from Annex 11 Protocols for Emergency Contraception. In “Clinical Management of Rape Survivors”. Revised Edition. WHO/UNCHR/WHO/UNFPA Geneva. 2004. P 64.

6.11 PROPHYLAXIS FOR SEXUALLY TRANSMITTED INFECTIONS

Survivors can either be offered prophylaxis for sexually transmitted infections or treated a follow-up appointment if they develop symptoms. The recommendations for the management of sexually transmitted infections are found on the MOHSS’s Guidelines for the Management of Sexually Transmitted Infections using the Syndromic Approach.

6.12 COUNSELING AFTER A SEXUAL ASSAULT

The social workers from the Woman and Child Unit should ensure that arrangements are made for ongoing therapy and support.

Social workers should be aware that compensation paid by the perpetrator to a member of the victim’s family in exchange for dropping charges is not a traditional means of resolution, and provides neither justice nor safety to the individual.

7. ANNEXURES

ANNEXURE 1: EMPLOYER'S REPORT OF ACCIDENT

EMPLOYEES COMPENSATION ACT, 1941
E.CL.2

(Section 51 – Regulations 9(2) – Annexure 1

EMPLOYER'S REPORT OF ACCIDENT

| |
|-------------------------|
| (For official use only) |
| Claim No. |

DIRECTIONS FOR COMPLETING OF FORM B BY EMPLOYER

Whenever an employee meets with an accident arising out of and in the course of his/her employment resulting in a personal injury to which medical treatment is required and any personal injury sustained by an employee and reported by him/her employment this form must be completed immediately by the employer in the following manner:

- Step 1 Complete "Part A", page 1 of the form giving full details, sign and date form where indicated.
- Step 2 Detach "Part B" (an automatic copy of "Part A", page1) by tearing it at the perforation, hand "Part B" to the medical practitioner or hospital concerned. In serious cases "Part B" must be forwarded to the medical practitioner or hospital without delay.
- Step 3 Forward completed form "Part A" together with a First Medical Report to the Social Security Commission – see address page 3.

FOR OFFICIAL USE

| | |
|--------------------------|--------------------------------|
| ACCEPT REPUDIATE..... | CONTROL Employer Index..... |
| | |
| | |
| | |
| | |
| | |
| NAME..... | Claims Registration |
| | |
| DATE..... | |
| | |

| |
|-------------------------|
| (For official use only) |
| Claim No. |

EMPLOYEES COMPENSATION ACT, 1941
 (Section 51 – Regulation 9(2) – Annexure 10)
 EMPLOYER'S REPORT OF ACCIDENT

DECLARATION OF EMPLOYER

I hereby declare that the particulars, shown in items 1 to 13 of this report, of an alleged injury on duty, are to the best of my knowledge and belief true and accurate.

Signed on this.....day of.....20.....

IMPORTANT → Capacity.....

SIGNATURE OF EMPLOYER

1. EMPLOYER:

Registered name with the Social Security Commission (block letters)

Postal Address.....

Town/City.....

Residential Address..... Telephone.....

Fax No.....

Nature of business, trade or industry.....

Plant or particular section in which employee is employed.....

Situation of business/farm/region.....

Your registration number as allocated by the Social Security Commission to this Business/Farming/Household undertaking must be filled in

| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

2. EMPLOYEE:

Surname (block letters).....

Social Security No.....

Firstnames (block letters).....

Residential Address.....

Postal Code.....

Identity No.....

Company No. / Sal. Ref. No.

Date of Birth..... Sex

Married or Single..... Occupation

EARNINGS (at the time of the accident):

(a) Gross cash earnings including average payments for Overtime and or commission of constant character.....

(b) Allowances of a recurrent nature.....

(i) Bonuses.....

(ii) Other allowances (specify nature).....

(c) Cash value of free food.....

(d) Cash value of free quarters.....

3. ACCIDENT:

(a) Date of accident.....19..... Time

(b) Place of accident..... Region

(c) Date employee reported the accident.....19..... Time.....

(d) How did the accident occur and what was the employee doing at the time?.....

.....

.....

.....

(Describe the accident fully, stating whether the injured fell or was stuck, etc. and all the factors contributing to the accident.)

(e) Was his/her action at the time of the accident in connection with your trade or business?.....
.....

(f) Are you satisfied that the employee was injured in the manner alleged by him/her (if not, please give reasons)
.....

(g) Nature of injury sustained by the employee (e.g. broken left leg, index finger of right hand crushed, cut to head or piece of metal in eye)
.....

4. Is the injured person working director or the owner of, or partner in the business?
.....

PART A PAGE 2 Must also be completed, please.

5. Was the accident caused by the employee's –
- (a) deliberate noncompliance with directions?
 - (b) reckless disregarded of the terms of any law or statutory regulation designed to ensure safety or health of employees or the prevention of accidents?
.....
 - (c) drunkenness?

N.B In any reply is in the affirmative, the employee must furnish and explanatory statement which must then be attached hereto together with your comments thereon

6. (a) Name and address of anybody who witnessed the accident
.....
- (b) Name and address of any other person who was aware of the accident at the time
.....
-

7. (a) How long has the employee been in your employ?
.....
- (b) Did he/she to your knowledge, have any physical defect, or did he/she suffer from any serious disease prior to the accident or has he/she previously received compensation for permanent disablement? If so, give full particulars
.....
.....
-

8. Will the employee during temporary disablement continue to receive from you-
- (a) free food? (yes or no)
- N.B. Ensure that item 2 (c) and (d) is completed
- (b) free quarters? (yes or no).....
-

9. (a) Are you prepared to make cash payments during temporary disablement in terms of the Act?
.....
- (b) If you have already paid cash to the employee, state the amount N\$
- (c) For what period were payments made? From..... to.....
-

10. (a) Date on which the employee ceased to work.....20..... Time.....
- (b) Number of days per week worked by the employee.....
- (c) Did the employee complete his/her shift on the day of the accident?
- (d) Date on which the employee resumed work?.....20..... Time.....
- (If the employee has not yet resumed work, a Resumption Report (E.CI.6) must be submitted as soon as he/she resumes duty.)
-

11. (a) If accident was investigated by the Police state name of Police Station
- (b) If motor vehicles were involved, please furnish registration number (s), if known to you
- (c) How many other employees were injured in the same accident?
-

12. (a) Was first aid given by the employer in this case?
- (b) Name of the medical practitioner who treated the employee. Dr.
- (c) Name of the hospital where the employee received treatment
-

13. N.B. Name and address of dependants or next – of – kin of the employee
.....
-

IMPORTANT

IMPORTANT

IMPORTANT

ANY ADDITIONAL DETAILS CAN BE SUPPLIED ON PART A PAGE 3.
ENSURE THAT ALL ITEMS HAVE BEEN COMPLETED BEFORE POSTING THIS FORM TO THE SOCIAL SECURITY COMMISSION.

If any injured employee should have leave your employ, please keep a record of the address where he/she can be reached so that money which might be payable to him/her from the Accident Fund, can be paid to him/her with your assistance.

ADDITIONAL DETAILS OR COMMENTS

This page may be used for any additional details or comments regarding the accident

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Forward completed Employer’s Report of Accident together with first Medical Report (E.CI.4) to:

THE SOCIAL SECURITY COMMISSION
P/BAG 13223
WINDHOEK

TELEPHONE 280 7999
FAX 211765

ANNEXURE 2: FIRST MEDICAL REPORT AND ACCOUNT FORM

EMPLOYEES COMPENSATION ACT, 1941
FIRST MEDICAL REPORT AND ACCOUNT

CLAIM NO

Surname of Employee

First Name(s)

Address

Name of Employer

Address

1. Date of Accident
Date of your first consultation

2. How did the alleged accident happen?

3. Full clinical description of injury (ies) (precision is essential, and technical terms may be used)
(See pages 3 and 5 of Handbook)
.....
.....

4. In your opinion, is the employer's condition due to the accident described in item 2 above?
.....
.....

5. Describe briefly any pre-existing defect(s) or disease – dates:
.....

6. X-Rays Date:.....
By whom:.....
(Attached report if available)

7. Surgical Procedures of Reduction:
Date:
By whom:.....

Brief Description:
.....
.....

8. Annexures:
Local: General: Duration: By whom:

9. (a) Consultation: Yes/No:
With whom:..... Date:.....

(b) Is physiotherapy ordered? Yes/No
Physiotherapist:

10. Is employee unfit for duty? Yes/No
Possible date fit for: Light duty: Normal Duty:

** Account i.r.o. first consultation or procedure(s)

Your Account No:Practice No:

| Description of Service | Place and dates of treatment or visits | Item of tariff | N\$ | c |
|------------------------|--|----------------|-----|---|
| | | | | |
| | | | | |
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| | | | | |

I certify that I have by examination, satisfied myself that the injury(ies) of the employee is the result of the accident as described above.

Date (important):

Signature of Medical Practitioner

Name (Printed):

N.B. This report must be handed to the injured employee or sent to his/her employer without delay.

Registered address:

**Please submit separate accounts for further services.

ANNEXURE 3: FINAL/PROGRESS MEDICAL REPORT FORM

E.CL.4
EMPLOYEES COMPENSATION ACT, 1941

Claim No:

*** FINAL /PROGRESS MEDICAL REPORT**
(*Delete which is not applicable)

Surname of injured employee (Block Letters)

.....

Name of Employee

.....

Date of Accident

.....

Describe any operation(s) procedure carried out and date(s)

.....

.....

.....

.....

Prognosis and further treatment?

.....

.....

.....

.....

(a) From what date has the employee been fit for his/her normal work?

or

(b) On what date is he likely to be fit for his/her normal work?

If so, describe in detail any present permanent anatomical defect and/or impairment of functions as a result of the accident.

.....

.....

.....

.....

.....

.....

.....

Printed Name:

Address:

Signature: General Practitioner

Date:

ANNEXURE 4: INCIDENT REPORTING FORM FOR OCCUPATIONAL EXPOSURE

1. DETAILS OF INSTITUTION:

REGION:

DISTRICT:

HOSPITAL/HEALTH FACILITY/OTHER FACILITY:

PRIVATE BAG:

TEL:

FAX:

2. DETAILS OF EMPLOYEE:

Surname:

First Name(s):

I.D. No:

Social Security No:.....

Sex: M F Age:.....

Address:

Position Held/Rank:

Hepatitis B vaccinated: Yes No

Is the employee pregnant? Yes No

Any existing medical condition? Yes No

Specify medical condition, if present:

Has employee agreed/refused to have his/her blood tested?

3. DETAILS OF SOURCE

Known

Unknown

Surname of patient:

First name(s) of patient:

I.D. No: or Passport No:

Postal Address:

Physical Address:

Known infection? HIV Hep B Hep C

Previous antiretroviral treatment: Yes No

If yes, which drugs?

Has source agreed/refused to have his/her blood tested?

4. TYPE OF EXPOSURE

Needle: Hollow Solid IM needle

IV needle

Suture needle

Massive needle

Blade:

Glassware:

Other (specify):

Visible blood on instrument? Yes No

5. ROUTE OF EXPOSURE

| | | | | |
|--------------------------|---|-----------|-------|------|
| Deep percutaneous | Δ | Bleeding: | Yes Δ | No Δ |
| Superficial percutaneous | Δ | Bleeding: | Yes Δ | No Δ |
| Blood on mucous (eye) | Δ | | Yes Δ | No Δ |
| Other (specify):..... | | | | |

6. DETAILS OF INCIDENT

Date of injury: Time:.....
 Date of injury reporting: Time: Name of Supervisor:
 Date doctor consulted: Time:..... Name of Doctor:
 Date of completing employer's report:
 Date blood of source (if known) taken: Time:
 Date blood of employee taken: Time:
 Date HIV prophylaxis started: Time:
 Drugs used: Time:
 Date HIV prophylaxis stopped.....Reason:

INCIDENT REPORT: EMPLOYEE

.....

SIGNATURE OF EMPLOYEE
 DATE

INCIDENT REPORT: SUPERVISOR/WITNESS

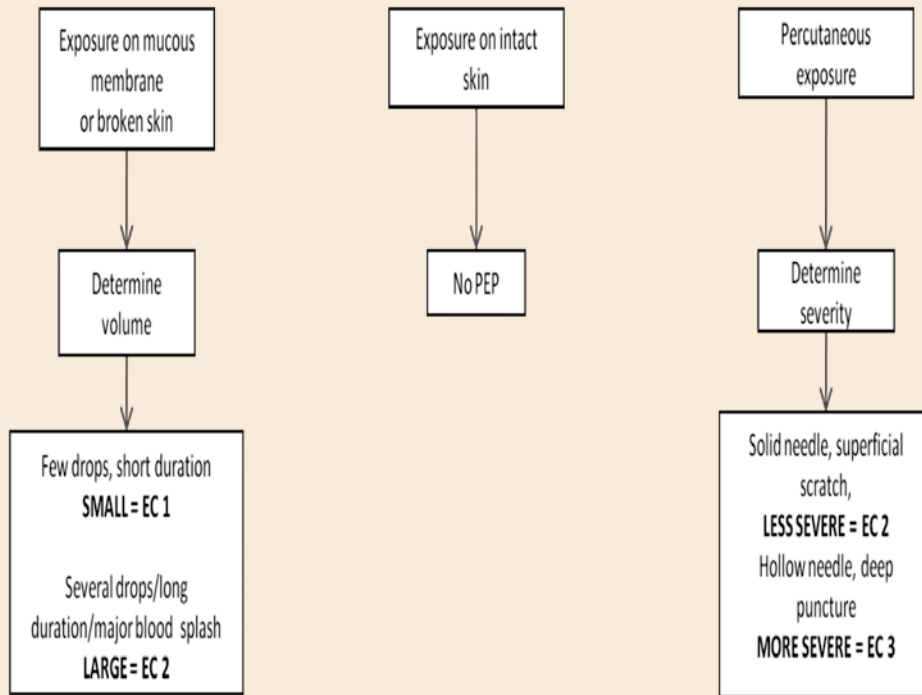
.....

SIGNATURE OF SUPERVISOR/WITNESS
 DATE

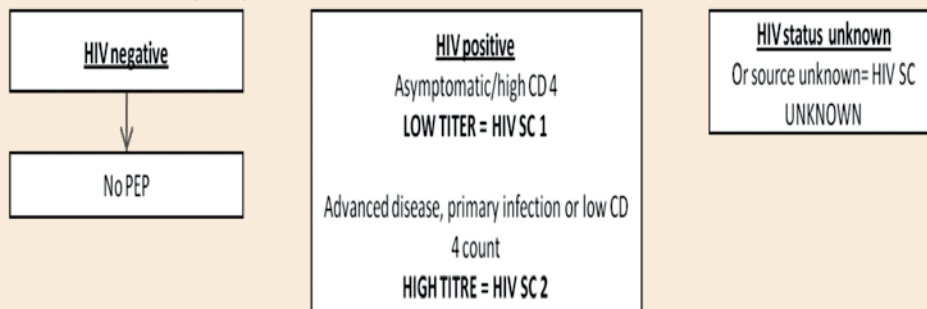
7. LABORATORY RESULTS

| Employee | Source | | Source | | |
|---------------------------------|--------|-----|------------------------|-----|-----|
| | Pos | Neg | | Pos | Neg |
| Hep. B Ag | Δ | Δ | | | |
| Hep B Surface AB | Δ | Δ | Hep. Bs Ag | Δ | Δ |
| Hep. C AB | Δ | Δ | Hep. C Ab | Δ | Δ |
| HIV at date of first sample | Δ | Δ | HIV at incident | Δ | Δ |
| HIV after 6 week (Date:.....) | Δ | Δ | Syphilis test and type | Δ | Δ |
| HIV after 3 months (Date:.....) | Δ | Δ | | Δ | Δ |
| HIV after 6 months (Date:.....) | Δ | Δ | | Δ | Δ |

Step 1: Type of Exposure – Determine the Exposure Code (EC)



Step 2: Determine HIV Status Code Source (HIV SC)



Step 3: Determine PEP Recommendation from EC and HIV SC

| HIV SC | EC | PEP Recommendation |
|---------|----|---|
| 1 | 1 | PEP may not be warranted |
| 2 | 1 | Consider basic regimen |
| 1 | 2 | Recommend basic regimen |
| 2 | 2 | Expanded regimen recommended |
| 1 or 2 | 3 | Expanded regimen recommended |
| Unknown | | Where EC is 2 or 3 and a risk exists consider PEP Basic Regimen |

D. HISTORY IN CASE OF ALLEGED SEXUAL OFFENCE

| | | | |
|---|--|--|---|
| 1. Age of menarche <input type="text"/> | 2. Number of pregnancies <input type="text"/> | 3. Number of deliveries <input type="text"/> | 4. Duration of pregnancy (if applicable) <input type="text"/> weeks |
| 5. Contraceptive (indicate with X): Yes <input type="checkbox"/> No <input type="checkbox"/> | | 7. First date of last menstruation: | |
| 6. Method and last date of application/ingestion: | | 8. Duration of period <input type="text"/> | 9. Duration of cycle <input type="text"/> |
| 10. Date and time of last intercourse with consent: | 11. Number of consensual sexual partners during last 7 days: | 12. Condoms Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 13. Since the alleged offence took place, has the person (indicate with X): bathed <input type="checkbox"/> washed <input type="checkbox"/> douched <input type="checkbox"/> showered <input type="checkbox"/> urinated <input type="checkbox"/> changed clothing <input type="checkbox"/> | | | |

E. GYNAECOLOGICAL EXAMINATION (State clinical findings)

| | | |
|---|---------------------------------|---|
| 1. Breast development: Tanner stage 1-5 | 2. Pubic hair: Tanner stage 1-5 | 3. Mons pubis: |
| 4. Clitoris: | 5. Frenulum of clitoris: | |
| 6. Urethral orifice: | 7. Para-urethral folds: | |
| 8. Labia majora: | 9. Labia minora: | |
| 10. POSTERIOR FOURCHETTE: | | |
| Scarring: | Bleeding: | |
| Tears: | Increased friability: | |
| 11. FOSSA NAVICULARIS: | | |
| 12. HYMEN: Configuration: | 13. Opening diameter (mm): | Transverse <input type="text"/> Vertical <input type="text"/> |
| 14. Swelling: | 15. Bumps: | 16. Clefts: |
| 17. Fresh tears (position): | 18. Synechiae: | 19. Bruising: |
| 20. VAGINA: Number of fingers admitted: | Bleeding: | Tears: |
| | Discharge: | |
| 21. CERVIX: | Erosion: | Discharge: |
| | Bleeding: | Other: |
| 22. PERINEUM: | | |

Signature of medical practitioner

F. SAMPLES TAKEN FOR INVESTIGATION

J88

| | | |
|--|-----------------------------------|-----------------------------------|
| Forensic specimens taken: urine sample for pregnancy test: | POSITIVE <input type="checkbox"/> | NEGATIVE <input type="checkbox"/> |
| Seal number of evidence collection kit: _____ | | |

2. SPECIMENS HANDED TO:

| | |
|------------------------|-------|
| Name: | _____ |
| Rank and force number: | _____ |
| Signature: | _____ |

3. CONCLUSIONS:

.....

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G. ANAL EXAMINATION (State clinical findings)

SKIN SURROUNDING THE ORIFICE:

| | | |
|---------------------|-------------------------|------------------------|
| 1. Hygiene: | 4. Abrasions: | 7. Redness/erythema: |
| 2. Pigmentation: | 5. Scars: | 8. Bruising/haematoma: |
| 3. Fissures/cracks: | 6. Swelling/thickening: | 9. Tags: |

ORIFICE:

| | | |
|---|--|--------------------------|
| 10. Tears/fissures: | 13. Reflex dilatation: | 16. Twitchiness/winking: |
| 11. Swelling/thickening of rim (tyre sign): | 14. Shortening/eversion of anal canal: | 17. Discharge: |
| 12. Funnelling: | 15. Cupping: | |

DIGITAL EXAMINATION:

| | |
|--|-------------------------------|
| 18. Presence of hard faeces in rectum: | 20. Thickening of anal verge: |
| 19. Laxity (pressure on anal orifice): | 21. Tone (sphincter grip): |

22. CONCLUSIONS:

.....

.....

.....

H. MALE GENITALIA

| | | |
|---|----------------------------------|---------------------------|
| 1. Genital development: Tanner stage 1-5: | 6. Pubic hair: Tanner stage 1-5: | 11. Prepuce and frenulum: |
| 2. Glans: | 7. Shaft: | 12. Scrotum: |
| 3. Testes: | 8. Epididymus: | 13. Vas deferens: |
| 4. Ulceration: | 9. Penile discharge: | 14. Smegma: |
| 5. Presence of faeces: | 10. Circumcision: | 15. Urethral orifice: |

16. CONCLUSIONS:

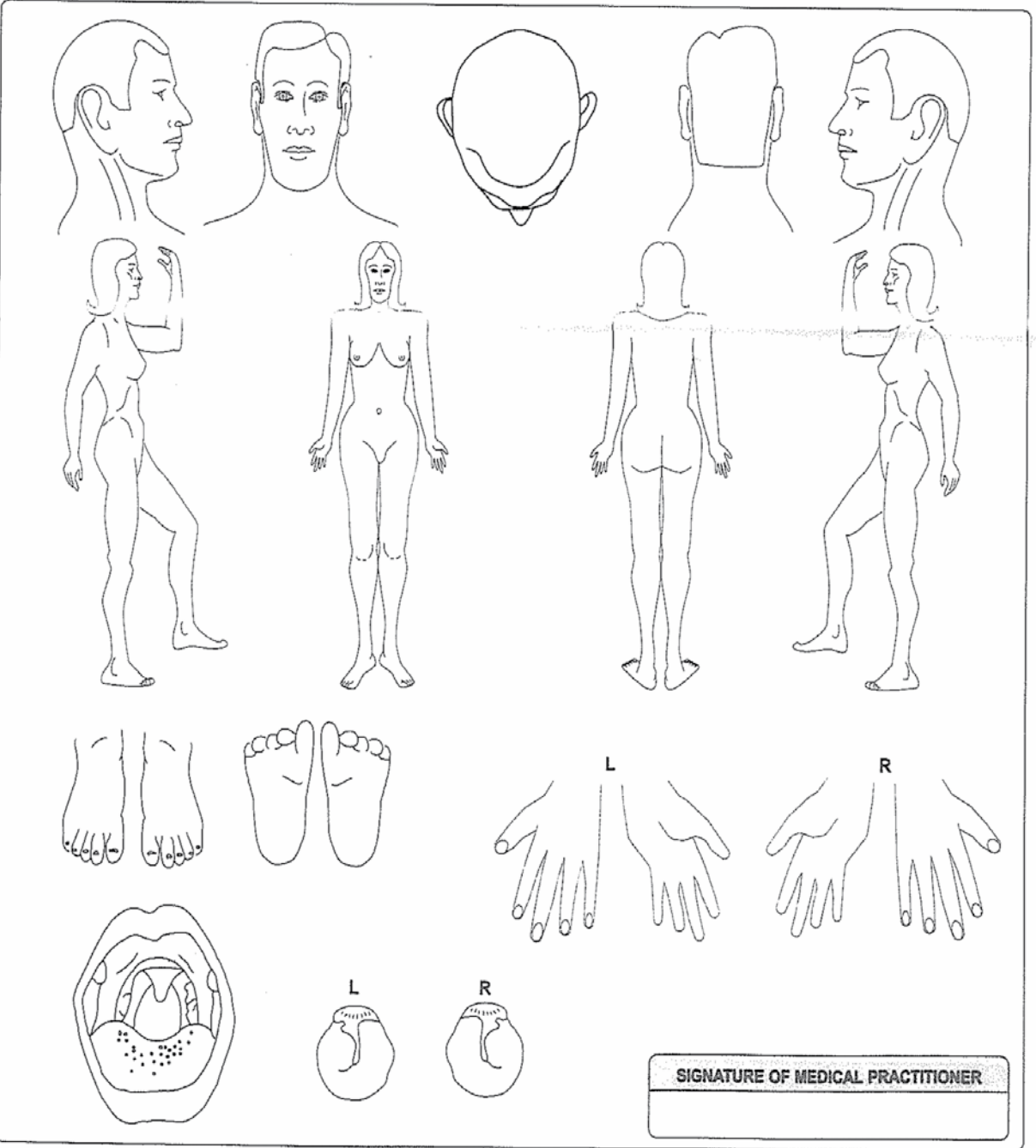
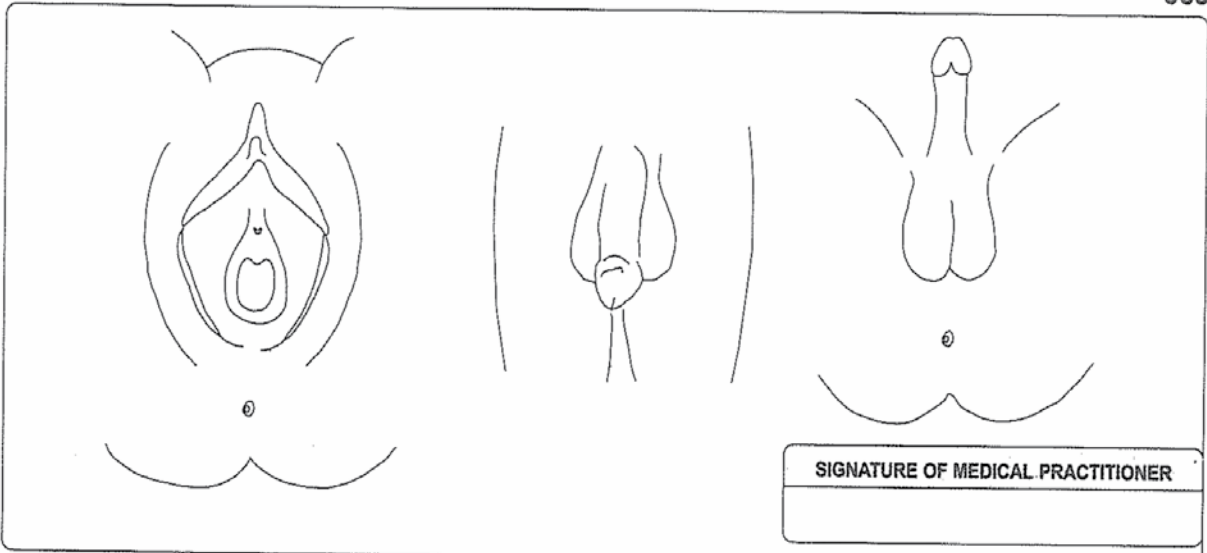
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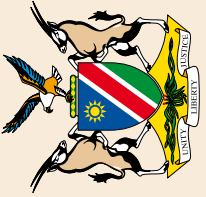
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Signature of medical practitioner _____



ANNEXURE 6: HEPATITIS B. REGISTER



Republic of Namibia
Ministry of Health and Social Services
----- District Hospital

Address

Tel:
Fax:
E-mail:

Hepatitis B. Register

| NO. | NAME | FACILITY | DATE 1 ST DOSE | DUE DATE 2 ND DOSE | ACTUAL DATE 2 ND DOSE | DUE DATE 3 RD DOSE | ACTUAL DATE 3 RD DOSE | REMARKS |
|-----|------|----------|------------------------------|--|--|-------------------------------------|--|---------|
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ANNEXURE 7: FACILITY QUARTERLY HEPATIS B. VACCINATION REPORT

**Ministry of Health and Social Services (MOHSS)
Facility Quarterly Hepatitis B Vaccination Report**

Name of facility: _____

District: _____

Region: _____

Month/Year: _____

| Indicator | Number | Percentage |
|--|--------|------------|
| Total number of employees | | N/A |
| Number of employees in positions exposed to blood and body fluids | | N/A |
| Number of employees in positions exposed to potentially infectious materials who have completed 3 doses of Hepatitis B vaccine or are immune | | |
| Number in exposed positions with fewer than 3 doses of vaccine and no documented history of HBV infection | | |
| Number in exposed positions who refused vaccine | | |
| Number of employees immunized against hepatitis B this quarter | | |
| | | |
| | | |

ANNEXURE 8: REFERENCES

- ¹Republic of South Africa. Country Progress Report on the Declaration of Commitment Report on HIV/AIDS. 2010 Final Report 31 March 2010.
- ²Unicef http://www.unicef.org/infobycountry/namibia_statistics.html#66, accessed Aug 17, 2010.
- ³CDC. Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Post-exposure Prophylaxis. MMWR Recommendations and Reports. June 29, 2001./50 (RR11);1-42.
- ⁴Perry, J and Jagger J., "Healthcare worker blood exposure risks, correcting some outdated statistics". Advances in Exposure Prevention (Vol 6)No 3. 2003.
- ⁵WHO Hepatitis B Position Paper. Weekly epidemiological record. Relevé épidémiologique hebdomadaire.2 October 2009, 84th year / 2 octobre 2009, 84e année No. 40, 2009, 84, 405–420. <http://www.who.int/wer>
- ⁶Mast EE, Ward JW, "Hepatitis B vaccines, in Vaccines, Fifth Edition Eds. Plokins, Orenstein, and Office. Saunders Elsevier publishers. China 2008. P. 220.
- ⁷WHO Hepatitis B Position Paper. Op cited.
- ⁹WHO Policy Paper on Hepatitis B. Op cited.
- ¹⁰Manual of Naval Preventive Medicine. Chapter 1: Food Service Sanitation. <http://www.brooksidepress.org/Products/OperationalMedicine/DATA/operationalmed/Manuals/food/manual/section2/1-9.htm> accessed August 21, 2010.
- ¹¹Adapted from Recommendations for Post-exposure Interventions to Prevent Infection with Hepatitis B Virus, Hepatitis C Virus, or Human Immunodeficiency Virus, and Tetanus in Persons Wounded During Bombings and Similar Mass-Casualty Events — United States, 2008
Recommendations of the Centers for Disease Control and Prevention (CDC).MMWR August 1, 2008 / Vol. 57 / No. RR-6. <http://www.cdc.gov/mmwr/pdf/rr/rr5706.pdf>
- ¹²CDC MMWR. June 29, 2001. Op cit.
- ⁹Cardo D et al. A case control study of HIV Seroconversion in Health Care Workers after Percutaneous Exposure. NEJM 1997;337:1485-90.
- ¹⁴American Congress of Obstetricians and Gynecologists. September 2010 http://www.acog.org/publications/patient_education/bp093.cfm
- ¹⁵CDC. A comprehensive immunization strategy to eliminate transmission of hepatitis B virus infection in the United States. Recommendations of the Advisory Committee on Immunization Practices (ACIP). Part 1: Immunization of infants, children, and adolescents. MMWR 2005;54(No. RR-16).
- ¹⁶Graphic from WHO. Chapter Six Sexual Violence. Global Report 2002. http://whqlibdoc.who.int/publications/2002/9241545615_chap6_eng.pdf
- ¹⁷Predictors of PTSD Severity and Social Reactions in Sexual Assault Victims. Journal of Traumatic Stress. Vol 14(2)369-389.

¹⁸Chow WH, Daling JR, Weiss NS, et al. Vaginal douching as a potential risk for tubal ectopic pregnancy. *Am Obstet Gynecol* 1985; 153(7):72. Wolner-Hanssen P, Eschenbach D, Paavonen J, et al. Association between vaginal douching and acute pelvic inflammatory disease. *JAMA* 1990; 263:1936-41.

¹⁹CDC. Antiretroviral Postexposure Prophylaxis after Sexual Injection –Drug Use or Other Non-Occupational Exposure to HIV in the United States. *MMWR. Recommendations and Reports*. January 21, 2005/54(RR021-20).

²⁰WHO. Emergency Contraception Fact Sheet No. 224. Revised October 2005.
<http://www.who.int/mediacentre/factsheets/fs244/en/>

²¹WHO. Medical Eligibility Criteria for Contraceptive Use. 2008 Update. WHO/RHR/08.19.
http://whqlibdoc.who.int/hq/2008/WHO_RHR_08.19_eng.pdf

²²Table taken from Annex 11, Protocols for Emergency Contraception. In *Clinical Management of Rape Survivors*. Revised Edition. WHO/UNCHR/WHO/UNFPA Geneva. 2004. P 64.