



# Reducing the impact of **HIV/AIDS** on Nursing & Midwifery Personnel



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**REDUCING THE IMPACT OF  
HIV/AIDS  
ON NURSING AND MIDWIFERY  
PERSONNEL**

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 **PREFACE**

These guidelines have been revised and expanded, reflecting ICN's continued concern with the risk reduction and management of occupational exposure to HIV, Hepatitis B and C and tuberculosis (TB) infections. The guidelines have benefited from the review and input of the ICN data bank of nurse experts.

The guidelines are directed toward nursing personnel; however we believe they will be helpful to all health care providers, managers and employers seeking solutions for the complex issues of occupational exposure, risk reduction and risk management related to HIV, Hepatitis B, Hepatitis C and tuberculosis infections. We believe that most needle stick and other sharps injuries can be prevented through safer equipment and other measures. Furthermore, we believe that employees have the right to expect fair, just and ethical employment policies related to occupational risk. Such policies will enhance the caring role of health workers, promote adherence to safety and reduce occupational exposure.

ICN is concerned about the lack of data on the extent of occupational exposure to blood-borne pathogens and TB and urges national nurses' association to lobby for injection safety and other infection control measures that would assure a safer work environment.

ICN hopes that these revised guidelines will be useful to national nurses' associations, other health professionals groups and individuals, governments and policy makers as they strive to create safer work environments.

Judith A. Oulton,  
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# INTRODUCTION

Nursing and midwifery personnel form the majority of health care workers in most countries and have a front-line caring role that brings them in close contact with patients' blood and other body fluids. This puts them at risk of contracting HIV, Hepatitis B (HBV), Hepatitis C (HCV), and other infections such as TB. Although relatively small, this risk is compounded by staff reductions and shortages in the wake of health services restructuring in many countries; lack of basic personal protective equipment or cleaning materials in some countries; and the alarming rise in the number of people with HIV and AIDS. In addition, the widespread resurgence of other infectious diseases, such as tuberculosis, has added a new dimension to the increase of occupational risks.

Often the true picture of occupationally acquired infections such HIV, HBV and HCV is not clearly known because of underreporting by health care workers. There are a number of reasons that affect the reporting of needle stick and other exposures, including fear of disciplinary action, lack of awareness, inadequate documentation, inadequate training or human error.

The increasing number of people with HIV/AIDS and the associated social stigma often generate fear and a heightened perception of infection risk among nursing and midwifery personnel, while the same level of concern may not be expressed in relation to sexual risk. Nurses and midwives, like other people, can be at risk of HIV, HBV and HCV infection due to personal behaviour or life circumstances. However, the risks are considerably reduced if they exercise caution both in personal behaviours and in the workplace.

In fulfilling their role as advocates for a safer work environment and socio-economic welfare of nursing personnel, national nurses' associations (NNAs) need to ensure that ministries of health, employers and nurse managers take responsibility for protection of personnel from HIV, HBV, HCV and TB infections in health care settings. They should also ensure that appropriate care, counselling, worker compensation policies and suitable work assignments for nursing/midwifery personnel with HIV and other infections, are instituted.

Over the years, ICN has become increasingly concerned about the risk of HIV, HBV, HCV and TB infections in nursing/midwifery personnel and the impact this might have on the profession worldwide. This is reflected in ICN position statements on HIV/AIDS and Socio-economic Welfare of Nurses. In order to address these concerns ICN has:

1. Adopted a resolution on HIV-positive nursing personnel;
2. Developed a position statement on the Impact of HIV/AIDS on Nursing and Midwifery Personnel;
3. Developed and disseminated fact sheets on prevention of needle stick injuries and guidelines on Reducing the Impact of HIV/AIDS on Nursing/Midwifery Personnel;
4. Convened a task force to examine the impact of HIV/AIDS on nursing/midwifery personnel, and to put forward recommendations and action-oriented guidelines for NNAs and others;
5. Linked with the WHO Safe Injection Global Network (SIGN); and
6. Implemented projects in three countries to address reducing needle stick injuries.

ICN believes that most needle stick and other sharps injuries can be avoided if adequate control measures are implemented, including standard precautions, safer working practices and the use of medical devices that incorporate needle protection.

ICN further believes that preventing occupational exposure to HIV and other blood-borne infections and guaranteeing appropriate health care and worker compensation, require a shared responsibility and the collaboration of legislators, employers, NNAs, nurse managers and nursing and midwifery personnel directly involved in the provision of health care. The actions and roles played by each impact on the extent to which the risk of HIV infection in the workplace will be reduced or increased.

## OBJECTIVES

These revised and expanded guidelines aim to help NNAs, nursing and midwifery personnel, nurse managers, employers and others to:

- Address the educational needs and ethical responsibilities of nursing and midwifery personnel in reducing transmission of HIV/AIDS, HBV, HCV and tuberculosis;
- Develop strategies for a safer work environment and increased protection for nursing and midwifery personnel from blood-borne diseases such as HIV, HBV, HCV and airborne diseases such as tuberculosis;
- Address the socioeconomic welfare issues related to the health care needs, compensation and financial security of HIV-positive nursing and midwifery personnel.

## SCOPE

The main focus of these guidelines is on HIV prevention and workplace issues. As well, other blood-borne infections, namely HBV and HCV, are addressed as the source of infection is similar and standard precautions followed for HIV infection are equally applicable and effective in their control. Tuberculosis (TB) is also addressed as it frequently occurs as a co-infection with HIV/AIDS.

These guidelines do not spell out details on subjects already covered in other publications (e.g. specific procedures and techniques of standard precautions<sup>1</sup> and such issues as ethics, cost-effectiveness, management of resources and lobbying for changes in legislation). Instead, reference is made to the appropriate resources (see endnotes).

## TRANSMISSION OF BLOOD-BORNE PATHOGENS AND TUBERCULOSIS

An understanding of the risk of infection and of preventive measures is essential in creating a safer work environment. Needle stick injuries are the highest reported type of accidents in hospitals. The most likely means of

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<sup>1</sup> The term 'standard precautions' is now more and more in use in place of 'universal precautions'. The term 'standard precautions' aims to be broader in scope and covers all body fluids to prevent transmission of other bacteria and viruses, not just those associated with blood.

transmission of blood-borne pathogens to health care workers is by direct percutaneous inoculation of infected blood by a sharps injury, or by blood splashing on to broken skin or mucous membrane.<sup>1</sup> It has been estimated that more than 80% of needle stick injuries can be prevented through the use of safer equipment ([www.isips.org](http://www.isips.org)).

The main blood-borne pathogens with which health care providers come into constant contact are HIV, HBV and HCV. These infections can be characterised by a chronic carrier stage or 'silent epidemic'. HIV is mainly transmitted through unprotected sexual contact, but, under rare circumstances, it can be transmitted in health care settings through direct contact with infected blood or other body fluids. Despite misconceptions about the short survival time of HIV outside the body, such as in dried blood, there is evidence that HIV can survive for hours even when dry, and weeks when protected from drying, as in a needle or multi-dose vial.<sup>2</sup> HBV is transmitted through infected blood and body fluids as well as through unprotected sexual contact. HBV vaccination provides an effective strategy to control infection. HCV is a blood-borne infection and as yet there is no vaccine. Safer sex, safe blood and standard precautions are the best strategies to control transmission of the blood-borne pathogens.

An airborne infection, TB is on the upsurge in both developing and developed countries with nine million new cases and approximately two million deaths in 2004.<sup>3</sup> Often fuelled by the increasing number of people whose immune system has been compromised by HIV/AIDS, TB is growing at an epidemic rate. The spread of HIV and the emergence of multi drug-resistant TB (MDR-TB) are creating a worsening situation. HIV and TB form a deadly co-infection, each speeding the other's progress. HIV weakens the immune system, and someone who is HIV-positive is more likely to develop an active case of TB if they are, or become, infected with TB. TB is the leading cause of death among people living with HIV/AIDS. Prevention of airborne transmission, tuberculin skin testing, vaccination and treatment are effective in its control.

Despite the similarities in the modes of transmission, the risk of HBV infection in health care settings far exceeds that for HIV infection. For example, it has been estimated that the risk of acquiring HBV infection following puncture with a needle contaminated by an HBV carrier ranges from 6% to 30% – far in excess of the risk of HIV infection under similar circumstances, which the Centre for Disease Control (CDC) and others estimate to be less than 1%.<sup>4</sup>

### SAFETY OF INJECTIONS

The World Health Organization (WHO) estimates that each year some 16 billion injections are administered in developing and transitional countries.<sup>v</sup> In some situations, as many as nine out of ten patients presenting to a primary health care provider receive an injection, of which over 70% are unnecessary or could be given in an oral formulation.<sup>vi</sup> At the same time, there is lack of evidence about the number of needle stick injuries and their consequences to health care providers, although unsafe injection practices have been linked to the transmission of blood-borne pathogens between patients and health care workers. To prevent the transmission of blood-borne pathogens that result from unsafe injections, injection use must be reduced and injection safety achieved. A safe injection does not harm the recipient, does not expose the health care worker to any risk and does not result in waste that is dangerous for the community.

To achieve injection safety requires preparation with clean hands, in a clean area, using medication drawn from a sterile vial and administered using a sterile syringe and needle. After administration, sharp equipment such as needles must be discarded in a puncture-proof container for proper disposal. When these rules are not followed, injections are unsafe and may expose the recipients, health care worker, or the community to infections.

The considerable prevalence of HIV, HBV and HCV in the population and the risk of transmission to patients or health care workers provide a compelling rationale for safe injections and standard precautions aimed at preventing cross infections. The WHO Safe Injection Global Network (SIGN) recommends the following three-element strategy:<sup>vii</sup>

1. Change behaviour among patients and health care workers to reduce injection use and achieve injection safety;
2. Ensure sufficient availability of sterile syringes and needles;
3. Appropriately destroy sharps waste after use.

Reducing the impact of HIV, other blood-borne infections and tuberculosis in health care workers involves concerted action by employers, health care workers, managers, national nurses associations and others. Each has ethical duties and obligations to create a safer work environment and to provide care.

## ETHICAL RESPONSIBILITIES

The ethical and moral issues in HIV/AIDS, HBV, HCV and TB prevention and care include the duty of nursing and midwifery personnel to provide care, and the responsibility of HIV-positive personnel to protect their patients and the community from harm related to transmission of disease. The responsibility to care for the sick is a moral ideal and a distinguishing feature of nursing and other health professions that is part of the choice to join the profession.<sup>viii</sup>

In caring for people living with HIV/AIDS, nursing and midwifery personnel may have 'misconceptions' of the HIV/AIDS risk that interfere with their ability to provide quality care. However, they have a moral and ethical responsibility to care for all people with or without HIV/AIDS or other diseases. As the ICN Code of Ethics for Nurses affirms, "the nurse's primary responsibility is to those people who require nursing care".

Under rare circumstances, HIV and other blood-borne infections can be transmitted in health care settings from patient to patient or from nursing and midwifery personnel to patients, through unsafe injection, non-sterilised equipment, poor infection control techniques, or lack of testing of donor blood. Invasive procedures that involve extensive contact with broken mucous or cutaneous tissue, or direct contact with blood and other body fluids, can increase the risk of HIV, HBV and HCV transmission to patients or health care workers. Tuberculosis can spread through droplet infection to patients or health care providers, especially when the immune system is compromised due to HIV/AIDS.

Health care workers do not pose a serious risk of HIV and other blood-borne infections to patients provided they adhere to the basic principles of standard precautions. Despite the rarity of this form of transmission, the ethical responsibility of HIV-positive nursing and midwifery personnel in preventing HIV transmission to others must be defined. This means that HIV-positive nursing and midwifery personnel must adhere to guidelines in their workplaces which may include voluntarily withdrawal from performing exposure prone and invasive procedures to avoid putting patients at risk. The ethical principles of "doing good and doing no harm"<sup>ix</sup> must constantly be upheld.

With the public's growing awareness but persistent fear of HIV/AIDS, patients and their family members may ask nursing and midwifery personnel about their HIV status, thus raising issues of privacy, confidentiality and human rights. HIV-positive health care workers, like other people living with HIV/AIDS, are entitled to privacy and the confidentiality of personal information.

ICN encourages NNAs to develop position statements and guidelines to enable nurses to deal with ethical dilemmas and disseminate information on the rights and responsibilities of nursing and midwifery personnel. As a general guideline, the respective country code of ethics and regulations regarding disclosure of personal information to clients should be applied. The education of health care providers and managers is vital in imparting knowledge as well as in changing attitudes and behaviours related to risk perception and risk reduction.



## EDUCATIONAL STRATEGIES

The education of health care workers should include risk assessment and risk reduction methods. The most powerful tool for reducing both occupational and personal risk of HIV, HBV and HCV infection is health education and behavioural change. Nurses are well placed to use this tool. Transmission of TB as an airborne disease can also be prevented through infection control measures. Education is also important in combating discrimination and negative attitudes towards people living with HIV/AIDS. It is important to note that stigma and discrimination are violations of human rights and educational programmes should tackle this issue through approaches that aim to achieve behavioural and attitude change toward people living with HIV/AIDS.<sup>x</sup>

More specifically, nursing and midwifery personnel must be educated on:<sup>xi, xii</sup>

- The modes of transmission of HIV, HBV, HCV and TB and how to prevent or reduce risk 'Safer sex' practices;
- Applying standard precautions;
- Interpersonal skills to help deal with stigma and communicate effectively;
- Safe injection practices;
- Reducing risk of 'sharps'<sup>2</sup> or other injuries, e.g. passing sharps in protective containers rather than directly by hand;

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<sup>2</sup> 'Sharps' is defined as any sharp object that can penetrate the skin, including needles, scalpels, broken glass, etc.

- Reducing stress and how to deal with sharps injury;
- Using safer methods and procedures for sterilisation, decontamination and handling of specimens; and
- Confidentiality and human rights including legislation and regulation that protect rights of patients and health workers.

Where HIV/AIDS and issues of human sexuality and intravenous drug use are considered taboo subjects, nursing and midwifery personnel may feel embarrassed or uncomfortable discussing these issues or may totally ignore the topics during health education sessions, thus perpetuating the conspiracy of silence. Peer support groups, internet chat pages and networking are helpful in addressing taboo subjects and sharing experiences. In these and other similarly difficult situations, locally developed or adapted creative approaches, such as acting, use of puppets, drama and story-telling are often more effective in dealing with human sexuality, HIV/AIDS, condom use and other sensitive issues. The ICN HIV/AIDS Network aims to be an effective resource for exchange of expertise and experiences, for example, through the ICN web site, the HIV/AIDS Network Bulletin, or during meetings of the Network (for information on the ICN HIV/AIDS Network, visit: [www.icn.ch](http://www.icn.ch)).

Because of the serious consequences of HIV/AIDS, nursing and midwifery personnel should be prepared to accept and provide counselling and education about these topics. They should be perceived as competent professionals capable of discussing issues openly and confidently, and of acting fairly and compassionately.

To be successful, educational programmes should be sustained over a period of time and not be episodic or developed in isolation. Should nursing and midwifery personnel show complacency with existing safety protocols and guidelines, nurse managers and administrators should take a proactive role in ensuring adherence to safety standards, so that a state of heightened awareness about prevention is maintained.

As knowledge about HIV/AIDS and other blood-borne pathogens is constantly evolving, nursing and midwifery personnel must be continually up-dated through continuing education programmes. NNAs should help meet these educational needs by organising seminars, workshops and 'train the trainers' projects and evaluate the effectiveness of these programmes. Educational programmes on HIV/AIDS and other blood-borne pathogens should be incorporated into basic and post-basic curriculum and continuing education programmes.

### ADDRESSING FEARS

Faced with the growing HIV epidemic, other blood-borne pathogens and increased prevalence in tuberculosis, nursing and midwifery personnel may feel powerless to protect themselves and thus experience anxiety and fear of contagion. A survey by the Royal College of Nursing, UK (RCN), for example, showed that 41% of nurses reported that contracting HIV, Hepatitis B or Hepatitis C through needle stick injury was their greatest work-related fear.<sup>xiii</sup> Such fear may be related to lack of a clear understanding of the mode of infection, method of prevention and/or the social stigma attached to HIV/AIDS. The extent of fear is often disproportionate to the actual risk and can result in denial of care or neglect of people living with HIV and AIDS. A peer support system with a network of concerned colleagues or HIV-positive nurses willing to share experiences can provide the opportunity to deal with one's vulnerability, fears and prejudices.

Educational strategies for nursing and midwifery personnel must impart knowledge, counselling and caring skills and, where appropriate, change attitudes and beliefs. Creative and innovative approaches and teaching methods should be used. For example, people infected with or affected by HIV/AIDS who are willing to share their personal experiences, can be effective in teaching health professionals, thus giving the invisible disease a human face. The more contact nursing/midwifery personnel have with people living with HIV/AIDS, the greater their knowledge and improved attitude, and the less likely they are to stigmatise and discriminate others.

### CREATING A SAFER WORK ENVIRONMENT

There are three levels or hierarchy of control that nursing and midwifery personnel can take to reduce risk of blood-borne pathogens.<sup>xiv</sup>

1. The first level involves engineering controls to modify the work environment. This includes strategies such as alternatives to injections, using ultrasound for kidney stones, availability of sharps containers and retractable syringes;
2. The second level includes strategies that focus on work practices and procedures. These include routine handwashing, disposing of sharps, announcing when passing sharp equipment, never recapping needles or using a one hand scoop, and substitution of staples for sutures;

3. Third level controls are based on the use of personal protective equipment, including gloves, gowns, masks, goggles and shoe covers.

The hierarchy of controls are mutually supportive in the protection of health professionals. First level controls are more effective and third level least effective.<sup>xv</sup>

Institutional guidelines as well as hand washing facilities, improved ventilation, cleaning supplies, single-use syringes, sharps containers and disinfectants must be available as part of creating safer work environments.

According to the International Labour Organization (ILO) all appropriate measures should be taken to prevent, reduce or eliminate risks to the health of nursing personnel.<sup>xvi</sup> This includes:

- A comprehensive national policy on occupational health;
- The establishment of occupational health services;
- Access to health surveillance, preferably during working hours and at no cost to the worker concerned;
- Medical confidentiality of health surveillance;
- Financial compensation for those exposed to special risks;
- Participation in all aspects of protection provisions.

The nurse has the right to expect the employer to provide a safe and healthy work environment, thus facilitating the provision of safe and efficient care. It is therefore incumbent upon the employer to protect personnel from occupational hazards, such as exposure to HIV and other blood-borne infections, and prevent transmission of infection to and from patients/clients.<sup>xvii</sup> At the same time, health workers have a responsibility to adhere to occupational safety and health guidelines and policies to create safer work environments.

Measures that promote a safer work environment include:

- Education of employees about the occupational risk and methods of prevention of HIV, Hepatitis B and C and other infectious diseases;
- Adherence to safety policies and procedures, and procedures for reporting exposure;

- Availability of appropriate disinfectants to clean up spills of blood or other body fluids;
- Properly placed sharps containers that are readily accessible;
- Provision of personal protective equipment such as gloves and other barrier devices.

The employer must assume responsibility for:

- Providing work practice controls such as needleless intravenous systems, safeneedle systems, and appropriate sharps disposal;
- Providing vaccines where available, such as Hepatitis B and others;
- Tuberculin skin testing, vaccination and follow-up care and treatment;
- Maintaining appropriate staffing levels;
- Ensuring that standard precautions are implemented (see box below);
- Providing post-exposure counselling, follow-up treatment and care;
- Instituting measures that reduce and prevent stress, isolation and burnout;
- Controlling shift lengths and providing supervision of inexperienced staff;
- Addressing the health care, compensation and financial needs of HIV-positive nursing/midwifery personnel;
- Providing a flexible work allocation for HIV-positive personnel depending on their condition and job demands, protecting them from other infections such as tuberculosis and continuing their employment for as long as possible;
- Providing dispute settlement mechanisms for HIV-infected personnel;
- Ensuring proper disposal of medical waste so that used needles and syringes do not put the community at risk of injuries and blood-borne pathogens.

### REDUCING TRANSMISSION OF HIV, HBV, HCV AND TB

The growing prevalence of HIV infections, other blood-borne pathogens and TB increases the risk that nursing/midwifery personnel will be exposed to blood and body fluids from infected patients. However, the transmission of HIV infection in health care settings is a rare occurrence provided basic principles of infection control and standard precautions are followed. Adherence to blood and body fluid standard precautions are effective in prevention of all blood-borne diseases, including Hepatitis B, Hepatitis C and HIV. Measures to control airborne infections such as TB must also be adhered to.

It must be stressed that preventive measures are difficult to practice when supplies and protective equipment are in short supply. Priorities must be set and low-cost alternatives sought. Yet, even when supplies are available, the use of standard precautions may be influenced by management policy, personal practices, attitude and complacency of staff.

Prevention of occupational exposure to HIV encompasses risk assessment and risk reduction methods. Nurse managers and employers must regularly assess procedures and practices and strengthen measures that reduce risk of disease transmission. These include:

- Adhering to standard precautions, including use of protective equipment;
- Using forceps or wearing heavy-duty gloves when disposing of sharps;
- Assessing protective or other equipment for risk and safety;
- Adopting safe techniques and procedures (e.g. disposing needles without recapping, or recapping using the single-handed scoop method);
- Making appropriate disinfectants and cleaning materials available;
- Sterilising equipment properly;
- Eliminating unnecessary injections, episiotomies and laboratory tests;
- Avoiding or covering breaks in skin, especially hands;
- Educating and supporting infected staff from carrying out exposure prone procedures;
- Ensuring effective procedural awareness and local supplies of post exposure prophylaxis.

Reviewing current procedures and introducing policy changes that promote a safer work environment are important. One could also negotiate to change physician-prescribing behaviour in favour of oral medications over the use of unnecessary injections, and to review and revise practices and policies on 'routine' procedures. Performance appraisals of nursing and midwifery personnel should include items on the practice of standard precautions and other measures that reduce the risk blood-borne pathogens and TB transmission.

The risk of occupational exposure to HIV, HBV and HCV is increased in deep injuries, large-bore needles that have been inserted into a source patient's vein or artery, sharps injuries involving visible blood or other body fluids and patients in terminal illness.<sup>xviii</sup> As part of the preventive effort, commonly occurring sharps injuries should be identified through surveillance, documentation and audit of records and injury reports. The most common accidental exposures and injuries should be reviewed with the aim of finding and adopting safer ways of performing the procedure. Where such injuries do occur, efficient first aid measures – including provision of postexposure prophylaxis (PEP), when indicated – should be implemented.

Medical equipment suppliers and manufacturers should also be provided with a feedback on occupational injuries related to their equipment and encouraged to develop safer devices and equipment.

A work environment characterised by an esprit de corps where team members are responsible for each other's safety and well-being creates a safer work environment with reduced risk of occupational exposure to blood-borne diseases and tuberculosis.

Other factors such as more patients, lower budgets, fewer staff, a heavy workload, lack of supervision and being unfamiliar with procedures can increase the risk of injury because of work-related stress and time pressures. The NNA, employer, standards committees and quality assurance teams should develop strategies to ensure that quality of care and safety of nursing and midwifery personnel are not threatened by a stressful workload or poor supervision.

**Standard Precautions** are designed to reduce the risk of transmission of bloodborne pathogens from blood and body fluids and include: <sup>xix</sup>

- Hand washing or use of alcohol hand rubs;
- Personal protective equipment (gloves, gowns, masks, etc.);
- Handling and disposal of sharps;
- Proper handling of soiled linen and disposal of waste;
- Work practices;
- Specimen handling and transport;
- Care of equipment (cleaning, transporting, etc.).

Standard precautions aim at reducing the source of infection in health care facilities and are based on the principle that all blood and body fluids should be considered as potentially infected with blood-borne pathogens such as HIV, HBV and HCV.

### PLANNING AND MANAGEMENT

The proper planning and management of supplies and other resources are essential in reducing the occupational risk of blood-borne pathogens and TB. Such measures should include risk assessment, setting of standards and written protocols that address safety, risk reduction, first-aid, post-exposure follow-up, etc. In addition, occupational risks can be reduced by introducing measures to prevent or reduce stress, maintain an optimum workload, familiarise new staff and provide supervision.

Burnout, which is a type of response to chronic stress on the job, can lead to lack of concentration and poor techniques that increase risk of pathogen transmission. Herbert Freudenberger, a psychologist who coined the term 'burnout', defined the concept as "the extinction of motivation or incentive, especially where one's devotion to a cause or relationship fails to produce the desired results".<sup>xx</sup> Burnout is often characterised by feelings of depletion, wearing out and loss of vitality and energy. Measures to reduce burnout include: rotation of staff to less stressful assignments, providing peer support groups, ensuring an appropriate workload and providing recognition for excellence in HIV/AIDS care. With HIV infected staff, it is also important they have free access to effective medication. Health care facilities that ignore staff

exhaustion can expect negative outcomes in staff morale, in the working environment and in quality of care. Further, the fear of occupational exposure to HIV and other infections in health care settings may discourage potential recruits from pursuing nursing as a career and thus reduce the future supply of trained nursing/midwifery personnel, unless the fears are openly addressed.

NNAs, employers, nurse educators and nurse managers should, therefore, promote and emphasise the positive aspects of HIV/AIDS care and encourage recruitment and retention. In this regard, proper planning and management should apply to human resources for nursing workforce and to essential supplies and equipment.

One way to support health workers and strengthen health systems is to provide HIV-positive personnel with access to care, support and antiretroviral therapy (ART). A wellness programme and ART are an essential part of the strategy to retain HIV-positive health care providers and enhance their productivity.<sup>xxi</sup> To this end, ICN in partnership with its member associations and others is pioneering wellness centres (e.g. in Swaziland and Zambia).

## PROCURING SUPPLIES/EQUIPMENT

The availability of essential supplies and protective equipment is closely tied with the safety of nursing/midwifery personnel and the quality of service that can be provided. Implicit in the availability of supplies is the importance of easy accessibility. For example, disinfectants and protective equipment might be 'available', but if they are stored away and inaccessible when needed, then the whole purpose of their protective value is defeated.

As part of their supply and equipment procurement function, nurses and nurse managers (supported by NNAs) should exert political pressure on employers and national and international agencies to provide funds for essential supplies and equipment for safe quality care.

It is vitally important that supplies are available continuously, not only in response to a crisis situation, and that they are rationally used. For example, wearing gloves for making beds is not consistent with standard precautions and, unless the bed linen is soaked with blood, is completely unnecessary. Similarly, wearing gloves for giving routine injections is a waste of supplies needed for more exposure prone procedures such as handling blood-soaked linen, suturing wounds or for deliveries. One way of assigning priorities is to

classify the commonly performed procedures and tasks into low, medium and high risk of HIV, HBV and HCV transmission. Individualised decisions can be made on whether and under what conditions the HIV-positive health care provider can be allowed to perform them.

One approach to achieving a sustainable supply of equipment would be to put competent and assertive nurses in leadership and decision-making bodies so they can articulate goals, plans and priorities. Another approach is to negotiate with the employer to ensure that appropriate and adequate supplies and equipment are available when needed. For example, ICN, through its Leadership for Change and Leadership in Negotiation Programmes ([www.icn.ch](http://www.icn.ch)) prepares nurses to meet the challenges of providing cost effective services and quality care. To this end, ICN believes that today's nurse leaders working in HIV and AIDS must:

- Understand health system reform and its impact;
- Be visionary;
- Think strategically;
- Plan effectively;
- Contribute to policy development;
- Manage change; and
- Work effectively in teams, partnerships and alliances.

Nurse leaders in HIV and AIDS also require a range of business and interpersonal skills in areas such as resource management, motivating and influencing others, negotiation and communication.

The proper management and use of equipment should be guided by considerations of cost-effectiveness (as opposed to cost containment) and safety during its use. The cheapest equipment may not necessarily be safe or cost-effective in the long term.

When resources permit, the use of disposable equipment is preferred to reduce the risk of transmission of HIV and other blood-borne pathogens. If non-disposable equipment is used, it must be properly cleaned and sterilised before every use.

NNAs must look for ways to increase nursing and midwifery input into National AIDS Programmes (e.g. by active involvement in key committees

where they can participate in setting priorities, recruiting and retaining sufficient staff for the local needs, and defining tasks for which protective equipment such as gloves, gowns, masks and goggles must be used).

### Obtaining Supplies/Equipment

Supplies and protective equipment are essential for providing appropriate care and for prevention of HIV transmission. Nurse managers and employers should ensure adequate supply by exploring different approaches, based on needs and resources:

- Find out what can be obtained from government or non-governmental sources through regular distribution systems.
- Find out what is locally available and can be bought. To what extent can patients and relatives contribute? Review the quality of available supplies.
- Develop or improve systems for ordering, transporting and storage of supplies and equipment.
- Work out a schedule for procurement, considering travelling distance, delivery time and weather.
- Establish payment and procurement procedures.

In settings with limited resources some supplies may not be available even at the central store. In this case other methods can be explored, such as direct buying of supplies from local merchants, charging patients or asking patients to purchase and bring their own supplies and equipment, so long as this does not result in life threatening delays in instituting care. Care must be taken to ensure that lack of resources does not result in denial of access to care for vulnerable and marginalised populations.

## POST-EXPOSURE CARE AND FOLLOW-UP

It is important that nursing and midwifery personnel who experience occupational exposure to HIV – such as needle stick injury, contact of mucous membrane or non-intact skin with potentially infected blood or other body fluids – are provided with prompt access to confidential post-exposure evaluation and follow-up counselling and care.

As part of follow-up care, NNAs, together with the full participation of workers and employers, should determine the criteria for ‘significant exposure’ to HIV/AIDS in the workplace. In defining significant exposure, criteria such as the amount of blood or other body fluids injected, serostatus of the source patient, and extent of laceration or wound inoculated with blood or body fluids can be used.<sup>xvii</sup> For instance, a procedure involving a deep needle stick injury contaminated with blood represents a definite exposure to HIV, HBV, and HCV infection. Once the definition of what constitutes a significant exposure is agreed, protocols for dealing with exposure must be put in place, and shared with nursing personnel.

It must be emphasised that protocols and guidelines for reporting an injury from sharps or extensive contact with body fluids in the workplace should be strictly adhered to by nursing and midwifery personnel. As HIV is primarily transmitted through sexual contact, attributing ‘significant exposure’ to the workplace may be challenged by the employer unless contact with potentially infected blood or body fluids was officially reported and appropriately documented.

The extent of occupational exposure to HIV should be evaluated so that the exposed health care personnel can be provided with proper counselling, postexposure prophylaxis (PEP) and care. Care should be taken not to make the process too complicated or expensive, as this will discourage nursing/midwifery personnel from reporting exposure or claiming their rights.

### Post-Exposure Care and Follow-up<sup>xxiii</sup>

- Clean wound with soap and water;
- Flash splashes to the eyes, mouth or skin with water;
- Irrigate eyes with clean water or saline solution;
- Encourage bleeding from the puncture wound. Do not suck;
- Cover wound with waterproof dressing;
- Notify supervisor immediately with details of exposure and steps taken;
- Complete accidental exposure form. Include names of witnesses, if any, and of patient, if known;
- If the status of the source patient is not known, try to have them tested;
- Report to the Accident and Emergency Department for further care and advice;
- Post-exposure prophylaxis (PEP) and antiretroviral therapy may be required, depending on resources and policy in the country. PEP should be started within a few hours of exposure;
- Follow-up with counselling, HIV antibody testing and monitoring at intervals;
- Report any signs and symptoms of infection such as fever, rashes or swollen lymph glands;
- Practice safe sex and ensure condom availability and use;
- Delay plans for pregnancy. If pregnant consult a physician for prevention of mother to child transmission;
- Refrain from donating blood.

The hepatitis vaccine is recommended as a personal protective strategy for all health professionals. Medications for post-exposure prophylaxis, including antiretroviral therapy, Hepatitis B vaccine and Hepatitis B immunoglobulin (HBIG) should be made available to health workers. Voluntary counselling and testing for HIV must be provided according to the principles of the '3 Cs': informed consent, counselling and confidentiality.<sup>xxiv</sup>



## ROLE OF NATIONAL NURSES' ASSOCIATIONS

In face of the prejudice and stigma surrounding HIV/AIDS and its chronic and disabling effect, nursing and midwifery personnel may fear that acquiring HIV infection will ruin their career and livelihood. Such fear may in turn compromise their ability to provide quality care or undermine their commitment to remain in the profession. NNAs must therefore lobby to ensure that occupationally acquired HIV/AIDS is accepted as a work-related disease for which nursing and midwifery personnel will be compensated.

Within the broad scope of "caring for the carers", NNAs should strive to develop alternative or supplementary health insurance schemes for meeting the care needs of nursing and midwifery personnel, or lobby for expansion of existing national insurance coverage.

While the type and extent of compensation and health care coverage may vary depending on the place of employment and employer, NNAs should:

- Protect benefits and continued employment opportunities for HIV-positive personnel;
- Negotiate employer-financed health care and disability insurance for work-related infection from HIV/AIDS and other blood-borne diseases;
- Lobby for compensation benefits;
- Negotiate job retraining opportunities for nursing and midwifery personnel whose physical ability may be compromised because of HIV, TB and other illness.

An adequate compensation policy will reinforce nursing and midwifery personnel's duty to care for all patients regardless of disease status. Although it may be tempting to provide 'risk allowance' for those providing HIV/AIDS care, any allowance or premium should be linked to quality and expertise in care, rather than risk of any specific disease.

### CONTINUED EMPLOYMENT

It must be emphasised that illness due to blood-borne pathogens such as HIV, HBV and HCV and to TB infection is not a cause for discontinuation of employment, whether the infection was acquired on the job or not. Thus, as with any other illness, HIV-positive nursing and midwifery personnel should be

allowed to work as long as they are fit,<sup>xxv</sup> refrain from practicing exposure prone procedures and adhere to standard precautions for infection control. Respect for the human rights of nursing and midwifery personnel should be the bedrock of approaches to reduce discrimination and stigma. Appropriate management of HIV/AIDS, including the provision of antiretroviral therapy, can improve the general health, life expectancy and quality of life of health workers living with HIV/AIDS. The ILO Code of Practice affirms that HIV infection and AIDS should be managed in the workplace like any other serious illness and workers should enjoy normal job security as long as they are medically fit.<sup>xxvi</sup> It is worthwhile to remember that the services provided by trained HIV-positive professionals outweigh the extremely low risk of HIV transmission to patients/clients. In line with this affirmative thinking, NNAs, nurse managers and employers should:

- Promote access to confidential voluntary HIV testing, counselling and appropriate follow-up care;
- Support flexible approaches that allow the assignment of nursing/midwifery personnel with HIV/AIDS to be modified on the basis of their ability to perform tasks and avoid infection (e.g. tuberculosis);
- Alert HIV-positive personnel to the risks of tuberculosis infection and benefits of preventive therapy to those already exposed to the disease;
- Promote policies that treat health care workers with HIV/AIDS the same as people with other serious illnesses;
- Implement effective and consistent education, e.g. on HIV awareness, sexual health promotion and infection / disease prevention; and
- Challenge negative attitudes and stigmas, educate on proper infection control procedures, etc.

If their ability to work is limited, health care personnel with AIDS should be provided with suitable alternative work arrangements and a supportive occupational setting.

### WORKPLACE ISSUES

Even nursing and midwifery personnel may not be immune from irrational and emotional responses when working with HIV-positive colleagues. To address such negative response, NNAs, nurse managers and employers should develop policies that:

- Protect the confidentiality and privacy of HIV-positive nursing and midwifery personnel;
- Prevent social isolation of HIV-positive personnel by co-workers;
- Keep HIV-positive personnel in a supportive occupational setting as long as possible;
- Provide a peer support system involving health care workers including those living with HIV; and
- Educate all employees, management and union leaders about the rights and care of HIV-positive health care workers.

To combat discrimination and isolation of nursing/midwifery personnel living with HIV/AIDS, educational programmes must be targeted to reach managers, supervisors, union leaders and all employees.

## **NNA SERVICES**

Depending on the stage of the disease and the resources available, HIV-positive nursing/midwifery personnel require a package of services which can include:

- Negotiating with employers, managers and insurance agencies not to discriminate against HIV-positive personnel;
- Providing support, legal assistance and referrals;
- Fostering networking with other HIV-positive health workers;
- Counselling on career change and job retraining opportunities;
- Advising about continued practice and disclosure of HIV status;
- Developing and disseminating position statements on issues such as mandatory testing, ethical obligations of HIV-positive personnel and disclosure of information; and
- Providing up-to-date and accurate information about compensation benefits, occupational risks and follow-up care.

Nursing and midwifery personnel have a long tradition of providing care without discrimination. It would be indeed unfortunate if they were themselves discriminated against because of HIV status. The challenge for NNAs, nurse managers and employers is to ensure that nursing and midwifery personnel

with HIV/AIDS are treated with dignity and afforded appropriate care and compensation benefits.

### **LOBBYING FOR PUBLIC POLICY**

A starting point for NNA work in influencing public policy on HIV/AIDS care, ethics and human rights is to review existing practices, policies and legislation in their countries to determine what needs to be changed or introduced. Using ICN guidelines and references, NNAs can then lobby for introducing or changing existing regulations and legislation to ensure that people with HIV/AIDS are treated like any other group with a health problem. Policies, practices and legislation should:

- Ensure that health care settings have infection control policies;
- Oppose mandatory HIV testing of patients and of health personnel;
- Ensure confidentiality and prevent disclosure of personal information about HIV status;
- Clarify criteria for definition of 'occupational exposure';
- Make occupationally acquired HIV/AIDS a compensable disease, like other occupational diseases and disabilities;
- Ensure comprehensive HIV-related employment regulations, including provision of HIV prevention education and protection against discrimination in the workplace;
- Clarify professional ethical norms and obligations in regard to health care and HIV/AIDS;
- Allow continued practice for HIV-positive personnel depending on their ability to perform.

### **NEEDLE STICK PREVENTION FOCAL PERSON**

NNAs should work with employers and nurse managers to set up infection control mechanisms that include prevention of needle stick injuries.<sup>xxvii</sup> Nursing and midwifery personnel must be involved in product evaluation committees to ensure that safety of devices and products is considered before purchase. As far as possible, safer devices that eliminate the use of needles or that provide a barrier between the needle and the health care provider should be chosen.

In addition, the needle stick prevention focal person should:

- Survey the workplace to determine where the highest number of needle stick injuries occur, and document the devices and procedures that cause the greatest number of injuries;
- Monitor needle stick reporting to assess trends and ensure that all injuries are being reported;
- Talk with health care workers and supervisors to find out why needle stick injuries may not be reported and to ensure that they are reported in the future;
- Confirm that post-needle stick protocols are in place and posted prominently for all employees to see. The protocols should include provisions on testing, counselling, prophylaxis and confidentiality;
- Educate health care providers and others on the prevention of needle stick injuries through meetings, leaflets, articles, or health and safety training sessions. As part of the educational programme, involve manufacturers of medical equipment to demonstrate their products and safety information.

## RESEARCH ISSUES AND PRIORITIES

Accurate reporting, surveillance and documentation of needle stick injuries, splashes and other exposures and their consequences on health care workers provides evidence and an accurate picture of the problem. NNAs, nurse researchers and nurse managers should be actively involved in research that aims to address the lack of a data base in the incidence and prevalence of occupational risk of HIV, HBV, HCV and tuberculosis among nursing and midwifery personnel across countries, including those with scarce resources.

Research could identify when, where, why and how sharps injuries occur in the workplace and provide insight into methods for preventing such injuries. For example, following a timely reporting and documentation of sharps injury, longitudinal tracking can be used to determine the extent of sero-conversion after occupational exposure to HIV. Such a database could then serve as a basis for developing preventive measures.

NNA research priorities could include:

- Factors that influence compassion and quality of care for people living with HIV/AIDS and TB;
- Evaluation of educational approaches that achieve desired learning outcomes in risk reduction and infection control;
- Methods of reducing occupational risk of HIV, HBV, HCV infection and TB;
- Action-oriented surveys of nurses' and midwives' knowledge, attitudes and practice related to HIV/AIDS, HBV, HCV and TB;
- Evaluation of supplies/equipment for availability, cost-effectiveness and safety;
- Compliance problems with standard precautions and methods of addressing them;
- Impact of HIV/AIDS and other blood-borne diseases on recruitment and retention of nursing and midwifery personnel;
- Factors that cause burnout among nursing/midwifery personnel in HIV/AIDS care.

In order to develop baseline data on trends and prevalence of HIV, HBV, HCV and TB infection in health care settings, NNAs should network at the regional and international level, sharing experiences and disseminating information. They should also monitor and document types and risk of exposure with a view to identifying preventive measures.

## CONCLUSION

Because of the risks related to personal behaviour and the potential for transmission of HIV, HBV, HCV and TB in health care settings a balanced approach to risk perception and risk reduction is required. Although the social stigma attached with HIV/AIDS may create conditions that interfere with quality of care, nursing and midwifery personnel have a moral and ethical duty to care for all people, including those infected and affected by HIV/AIDS.

Similarly, the employer has a moral and ethical duty to provide nursing and midwifery personnel with appropriate supplies and protective equipment as well as proper health care and financial compensation for HIV-positive personnel. The use of standard precautions, even in settings with limited supplies and protective equipment, is effective in reducing the risk of infection.

The prevention of HIV, HBV, HCV and TB infection in health care settings is a shared responsibility among national nurses' associations, employers, nurse managers and nursing and midwifery personnel, as well as manufacturers of health care equipment. It also requires the commitment of all members of the health team to ensure that their actions do not endanger others (e.g. by leaving sharps around or expecting others to clear them up after use).

The role of nursing and midwifery personnel in health education and information is of vital importance not only in the prevention of HIV, HBV, HCV and TB infection in the workplace, but in reducing personal and social risks in the community as well. So long as there is no effective cure or vaccine for HIV infection, standard precautions and health education aimed at changing behaviour remain powerful and effective interventions for reducing risk.

ICN, in partnership with its member NNAs, ILO, WHO, UNAIDS and others, will continue to promote a healthy work environment through lobbying, dissemination of information, and development of guidelines and position statements on the prevention, care and management of occupational risks in nurses and other health care workers.



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