

# **HIV Infection and Health Care Workers - Recommended Guidelines**

(adopted from the Hong Kong Advisory Council on AIDS, October 2013)

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***CME / CNE / PEM point accreditation*** (*please refer to the attached test paper for the number of credit points awarded*)

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## **(1) BACKGROUND**

### 1.1

AIDS (Acquired Immunodeficiency Syndrome) is caused by the human immunodeficiency virus (HIV). Since the syndrome was first described in 1981, it has rapidly spread across the world. An estimated 34 million people were living with HIV worldwide as of end 2011. (The Joint United Nations Programme on HIV/AIDS (UNAIDS))

### 1.2

HIV is transmitted through three routes: (a) sexual contact with an HIV-infected person, (b) exposure to contaminated blood and needles, and (c) perinatally from an infected mother to her baby. Worldwide as well in Hong Kong, sex between men and heterosexual contact are the most prevalent modes of transmission. Injecting drug use is also an important risk factor in some countries.

### 1.3

HIV infection has been uncommonly reported to occur in health care settings by exposure to contaminated blood through percutaneous injuries or mucous membranes. The estimated risk of contracting the virus after needlestick injuries with exposure to infected blood is about 0.3%.

### 1.4

Substantial overseas literature and experience indicate a very low risk of health care worker-to-patient HIV transmission. Worldwide there have been only four reports of transmission of HIV from infected and untreated health care workers. Over 30 lookback investigations in the United Kingdom involving about 10000 patients cared for by infected workers throughout many years had not identified any case of transmission. The overall risk of HIV transmission to patient has been estimated to be one in a few million even with the most invasive procedures. A local lookback investigation conducted in 2012 for 132 patients did not identify positive case.

## **(2) GENERAL PRINCIPLES**

### 2.1

Given the extremely low risk of HIV transmission in the health care setting, standard precautions in handling blood and other body fluids is generally advocated as the most effective measure in minimising the chance of infection.

### 2.2

Health care workers should seek appropriate counselling, testing and follow up if they have reason to suspect that they are infected. They are professionally obliged to exercise duty of care and protect the safety of their patients. It would be unethical if they fail to do so and put patients at risk. International authorities recommend that voluntary instead of mandatory HIV testing is the best way of encouraging people at risk of infection to seek counselling and appropriate treatment.

### 2.3

HIV infected health care workers should receive treatment, care and monitoring of HIV disease. With the antiretroviral treatment advances and good prognosis of early HIV diagnosis followed by appropriate treatment and care nowadays, there is clear benefit of early HIV testing followed by proper clinical management to the health of individuals (including health care workers) who may have been exposed to HIV (see reference 1). Lowering the viral load of the infected, which is possible for most patients who adhere to treatment, also contributes to the prevention of onward transmission at population level.

### 2.4

Health care workers are generally not required to disclose their HIV status to their patients or employers. Disclosure, if any, should be made on a need-to-know basis and with the worker's consent. Maintaining confidentiality is not only necessary to protect individual privacy, it is also essential for encouraging health care workers (either infected or at risk of infection) to come forward for proper counselling and management.

### 2.5

Currently, restricting the practice of health care workers on the basis of HIV status alone is not warranted. Job restriction or modification, if any, should be determined on a case-by-case basis. The need for such restriction may evolve with medical advances, epidemiological changes, international recommendations and local experiences.

## **(3) GUIDELINES**

### **3.1 Enforcement of Infection Control**

Preventing HIV transmission is but one component in a health care institution's overall infection control mechanism (see reference 2). This involves but is not limited to:

- Sound infection control practices to be implemented at all levels, taking into consideration factors unique to individual settings;
- Multidisciplinary infection control committee to develop, promulgate and update infection control policies;
- Written infection control guidelines on standard precautions for preventing the spread of blood-borne pathogens;
- Quality control measures;
- Infection control training;
- Support and assistance at the institutional/employer level

On a broader front, the subject of infection control should be an integral part of undergraduate, pre-registration and/or pre-employment training for all health care workers who may come into contact with blood/body fluids. Regular course tailored to the infection control needs of individual specialties should be organised by professional bodies, academic and training institutions, as well as employers and relevant government departments.

### **3.2 Standard Precautions against Blood / Body Fluid Exposure**

Adherence to standard precautions reduces the risk of direct exposure to blood and/or body fluids including amniotic fluid, pericardial fluid, pleural fluid, peritoneal fluid, synovial fluid, cerebrospinal fluid, semen and vaginal secretion. The risk of HIV transmission from faeces, saliva, nasal secretion, sputum, sweat, tears, urine and vomitus without overt blood staining is negligible, and good simple hygienic measures should be sufficient. Prompt and proper management including post-exposure prophylaxis as indicated should be sought by injured health care workers after occupational exposure such as needlestick injury (see reference 3).

### **3.3 HIV Counselling & Related Services for Health Care Workers**

Information and counselling on HIV should be made easily available and readily accessible for all health care workers, in particular those who may have been exposed to HIV through self/partner risk behaviours, occupational accidents or other modes. The importance of voluntary and confidential counselling and HIV testing should be emphasised and promulgated by the employers and professional bodies. Currently both the AIDS Counselling & Testing Service of the Department of Health and non-governmental organisations provide free and anonymous HIV counselling and testing services (see reference 4).

### **3.4 Rights & Responsibilities of HIV Infected Health Care Worker**

#### ***3.4.1 Confidentiality***

In general, health care workers are not required to disclose their HIV status to their employers or patients. HIV infection and AIDS are not notifiable diseases by law in Hong Kong, and reporting is voluntary. Upholding confidentiality of HIV infected individuals is the key to effective prevention and control. There are, however, occasions where the HIV status has to be made known on a need-to-know basis, and this will normally be with the consent of the infected worker. For example, doctors or other specialists involved in evaluating an infected health care worker may need to know his HIV status. In exceptional circumstances, breach of confidentiality by the attending doctor or other may be warranted, for instance when an HIV infected health care worker refuses to observe the restrictions and places patients at risk.

#### ***3.4.2 Right to Work***

The status and rights of an HIV infected health care worker as an employee should be safeguarded. If work restriction is required, the employer should make arrangement for alternative work, with provision for retraining and redeployment.

#### ***3.4.3 Professional Ethics***

An HIV infected health care worker should seek appropriate care, treatment and counselling and act upon them, so as to maintain optimal health and prevent spread of the infection to patients and others. It is professionally unethical if one fails to do so as patients are put at risk. The attending doctor of an HIV-infected health care worker should also make anonymous referral to seek the advice of the Expert Panel on HIV Infection of Health Care Workers (Expert Panel) on the areas of management and possible need for job restriction / modification (Appendix). The doctor who has counselled an HIV infected colleague on job modification and who is aware that the advice is not being followed and patients are put at risk, has a duty to inform the relevant professional governing bodies, e.g. Medical Council, Dental Council, for appropriate actions.

#### ***3.4.4 Expert Panel***

The attending doctor should engage the HIV-infected health care worker in referring the case to the Expert Panel formed by the Director of Health. The Expert Panel will undertake a case-by-case evaluation to decide whether job restriction or modification is warranted. Multiple factors that can influence risk and work performance would be considered, including viral load, risk analysis of work activities, procedural techniques, skills and experience of the worker. The Expert Panel has been taking reference from the UK Department of Health guidance (2005) regarding exposure prone procedures (EPP): *EPP are those invasive procedures where there is a risk that injury to the worker may result in the exposure of the patient's open tissues to the blood of the worker (bleed-back). These include procedures where the worker's gloved hands may be in contact with sharp instruments, needle tips or sharp tissues (e.g. spicules or bone or teeth) inside a patient's open body cavity, wound or confined anatomical space where the hands or fingertips may not be completely visible at all times.*

### **3.5 Risk Communication**

The issue of HIV transmission in health care setting has raised much public concern despite the minimal risk involved. The health care profession has the duty to educate the public on HIV transmission and prevention, to dispel misconceptions and to reduce social stigma and discrimination

associated with HIV. At the same time, society expects the health care profession to protect patient interests and to exercise their duty of care. The mechanisms in place locally, viz. adoption of standard infection control practices, ready availability and accessibility of quality HIV testing and treatment services, promulgation of professional guidelines, and operation of an Expert Panel all contribute to minimising the risk of HIV transmission in the health care setting. This message should be clearly communicated to reassure the public and allay unnecessary fear.

### **Local References:**

1. Scientific Committee on AIDS and STI (SCAS), Centre for Health Protection, Department of Health. Recommended Principles of Antiretroviral Therapy in HIV Disease. February 2011. (Available at [http://www.chp.gov.hk/files/pdf/recommended\\_principles\\_of\\_antiretroviral\\_therapy\\_in\\_hiv\\_disease\\_r.pdf](http://www.chp.gov.hk/files/pdf/recommended_principles_of_antiretroviral_therapy_in_hiv_disease_r.pdf) )
2. Scientific Committee on AIDS and STI, Advisory Council on AIDS & CHP. Recommendations on infection control practice for HIV transmission in health care settings. January 2005. (Available at <http://www.info.gov.hk/aids/pdf/g139.pdf> )
3. Scientific Committee on AIDS and STI, and Infection Control Branch, CHP, DH. Recommendations on the postexposure management and prophylaxis of needlestick injury or mucosal contact to HBV, HCV and HIV. September 2007 (Available at [http://www.chp.gov.hk/files/pdf/recommendations\\_on\\_postexposure\\_management\\_and\\_prophylaxis\\_of\\_needlestick\\_injury\\_or\\_mucosal\\_contact\\_to\\_hbv\\_hcv\\_and\\_hiv\\_r.pdf](http://www.chp.gov.hk/files/pdf/recommendations_on_postexposure_management_and_prophylaxis_of_needlestick_injury_or_mucosal_contact_to_hbv_hcv_and_hiv_r.pdf))
4. Advisory Council on AIDS and the Scientific Committee on AIDS and STI, CHP, DH. Principles of consent, discussion and confidentiality required of the diagnostic HIV test. July 2011. (Available at [http://www.chp.gov.hk/files/pdf/principles\\_of\\_consent\\_discussion\\_and\\_confidentiality\\_required\\_of\\_the\\_diagnostic\\_hiv\\_test\\_r.pdf](http://www.chp.gov.hk/files/pdf/principles_of_consent_discussion_and_confidentiality_required_of_the_diagnostic_hiv_test_r.pdf))

## **Appendix**

### **Expert Panel on HIV Infection of Health Care Workers**

#### **Background**

Transmission of blood-borne pathogens, e.g. HIV, though a rarity, can occur in health care settings. Adherence to standard infection control practices is crucial to minimise blood-borne pathogens transmission. The risk of HIV infection after a health care worker sustains needle stick injury contaminated with the blood of a HIV patient is about 0.3%. Moreover, substantial scientific literature and overseas experience indicate a very low risk of health care worker-patient HIV transmission. For example, lookback investigations in the United Kingdom involving about 10000 patients cared for by infected workers throughout many years had not identified a single case of transmission. In Hong Kong, there has been no report of HIV infection as a consequence of patient-to-provider or provider-to-patient transmission. Nevertheless, HIV infected health care workers should be assessed and receive advice so as to safeguard the health of patients and the health care workers.

#### **The Expert Panel**

The Expert Panel on HIV Infection of Health Care Workers (Panel) was formed in 1994 by appointment of the Director of Health, under the recommendations of the document *HIV Infection and the Health Care Workers - Recommended Guidelines* published by the Hong Kong Advisory Council on AIDS. The Panel is currently chaired by Prof Lam Tai-hing, with members including Dr Lai Sik-to, Dr Lo Yee-chi, Dr Ho Mang-ye, Dr Luk Hung-to, Prof Lee Lai-shun and Ms Wong Wai-kwan. The Special Preventive Programme of the Centre for Health Protection, Department of Health provides secretariat support to the Panel. The Panel serves to assess anonymous referrals from the attending doctors of infected health care workers, and provide advice on the need of job modification and lookback investigation on a case-by-case basis. All information is treated in strict confidence, as the Panel acknowledges the importance of upholding confidentiality in encouraging health care workers to seek appropriate HIV counseling, testing, care and assistance.

#### **Its terms of reference**

- (a) To assess and advise on job modification of HIV-infected health care worker on a referral basis,
- (b) To relay case recommendations to the referring doctor, the respective professional body and the Director of Health,
- (c) To advise Director of Health on the need of conducting lookback and other public health intervention for cases assessed,
- (d) To keep under review international development on the management of HIV infection in health care workers, and to update professional bodies of the development as appropriate.

#### **Its work**

Over the years, the Panel has worked on the following:

- (a) set up a referral system to provide advice to attending doctors of HIV infected health care workers, assess referred cases and issue recommendations;
- (b) issue reminders to health care professions (through writing to professional councils) drawing their attention to the need to observe the guidelines on HIV infection and health care workers, as well as the work of the Panel;
- (c) monitor closely international development on the subject of HIV infection and health care workers; and,
- (d) submit reports to the Director of Health on the progress of its work, including an account of infected health care workers referred to the Panel for advice.

As of the end of December 2012, the Panel has assessed twenty seven cases. The infected health care workers belong to a variety of professions, including medical, nursing, dental and allied health. As always, the Panel has maintained confidentiality of all the cases assessed. The Panel recommended a lookback investigation in 2012. It was conducted by the Hospital Authority and none was detected HIV positive out of 132 patients tested.

**Contacting the Panel**

The Panel can be contacted through its Secretary, Dr. KH Wong, at 3/F, Wang Tau Hom Jockey Club Clinic, 200, Junction Road East, Kowloon, HONG KONG, Tel: (852) 3143 7289; Fax: (852) 2780 9580.

## Workflow of the Panel

### Potential case referral

Attending doctor of an infected health care worker contacts the Panel Secretary for referral



### Immediate advice to the attending doctor and actions

- Explain the assessment process of the Panel
- Inform of the need to give immediate advice to the infected worker; for such, professional advice could be sought from infection control experts, occupational health physicians or HIV physician
- Send Panel referral form and ACA guidelines as necessary



### Anonymous referral

Attending doctor refers the case anonymously with the completed referral form; the infected health care worker is to be engaged in the process



### Case evaluation

Assessment of the case by the Panel within 2 weeks of receipt of referral. Participation of a member of the profession of the infected worker in the evaluation process as indicated, and he/she be co-opted as member of the Panel evaluation meeting



### Recommendations upon assessment be conveyed to

- attending doctor
- professional body of the infected worker

- \* The need for lookback investigation of past patients will be assessed. The approach should be risk-based, taking into consideration multiple factors including scientific data, past experiences and relevant case information. Other local and overseas expert might be engaged. Confidentiality of the infected worker has to be safeguarded.

## **Test paper - HIV Infection and Health Care Workers - Recommended Guidelines**

Expiration Date: 01 December 2014

#  
**CME / CNE point: 1 / PEM point: 1** (*Healthcare related which contributes to the enhancement of professionalism of midwives/nurses*)

- Please indicate one answer to each question.
- Answer these on the answer and make submission by fax to Special Preventive Programme, Department of Health.

# Please contact respective authorities directly for CME/CPD accreditation if it is not on listed below.

Accreditors	CME Point
Department of Health ( <i>for practising doctors who are not taking CME programme for specialists</i> )	1

1. Which of the following is not true regarding transmission of HIV from health care worker to patient in health care settings?
  - (a). The transmission risk is very low
  - (b). There have been just over 10 reports worldwide of such occurrence
  - (c). UK has conducted lookback investigations involving over 10,000 patients with no evidence of transmission found
  - (d). Hong Kong has conducted a lookback in 2012 which did not find positive case
  - (e). None of the above
2. Which of the following is not true about the rights of HIV infected health care workers?
  - (a). HIV infected health care workers are generally not required to disclose their HIV status to employers and patients
  - (b). HIV infected health care workers have the right to receive HIV care and treatment
  - (c). HIV infected health care workers have the right to continuing working as health professionals, with job modification as necessary
  - (d). HIV infected health care workers' rights as patients and health care workers should not be hampered as a result of their infection
  - (e). None of the above
3. Which of the following is not true about the Expert Panel on HIV Infection of Health Care Workers (Expert Panel)?
  - (a). It is set up by the Department of Health in 1994
  - (b). It is chaired by a government health official
  - (c). It assesses referral by the attending doctor of HIV infected health care worker on an anonymous basis
  - (d). It communicates with various professional bodies on the subject of HIV infected health care workers
  - (e). It abides to the principle of confidentiality in its assessment of cases
4. Which of the following is not true about duties of HIV infected health care workers?
  - (a). HIV infected health care workers have the duty of care for their patients
  - (b). HIV infected health care workers should seek appropriate care and treatment of their infection
  - (c). HIV infected health care workers should follow the advice of Expert Panel
  - (d). HIV infected health care workers should take every necessary step to avoid transmitting HIV to their patients
  - (e). None of the above

5. Which of the following is not true regarding infection control in the prevention of HIV transmission in health care settings?
  - (a). Adherence to infection control is of prudent importance to prevent transmission of HIV and other blood-borne pathogens in health care setting
  - (b). Standard precautions should be adequate for the prevention
  - (c). Post-exposure management including appropriate chemoprophylaxis constitutes an important component
  - (d). Forbidding infected health care worker to work is the best approach
  - (e). None of the above
  
6. Which of the following is not true for health care workers exercising their obligations to protect patients from contracting HIV during health care?
  - (a). Health care workers should seek HIV counseling and testing if they have reason to suspect they may be infected or at risk of infection
  - (b). They can seek HIV testing services that suit their need, e.g. anonymous services
  - (c). It is professionally unethical if they fail to exercise duty of care and put patients at risk
  - (d). Mandatory HIV testing for all health care workers is desirable
  - (e). None of the above
  
7. Which of the following is not a concern in Expert Panel's assessment of case referral?
  - (a). Whether the infected health care worker is engaged in exposure prone procedures
  - (b). The compliance of the worker with recommended infection control practices
  - (c). The details of HIV infection, e.g. timing, stage, viral load, treatment
  - (d). Whether there is evidence of exposure risk to past patients
  - (e). None of the above
  
8. Which of the following has been contributing to the prevention of health care related HIV transmission in Hong Kong?
  - (a). Operation of an Expert Panel to assess infected health care worker
  - (b). Code of conduct and governance by the health professional bodies
  - (c). Adoption of standard infection control practices in health care institutions
  - (d). Presence of quality HIV testing and treatment services
  - (e). All of the above