For Information
On 14 May 2012

Legislative Council Panel on Health Services

Issues relating to healthcare personnel infected with HIV

PURPOSE

This paper briefs Members on the management of HIV (the human immunodeficiency virus) infection in health care workers.

BACKGROUND

2. HIV is transmitted by three routes, viz. sexual contact, blood-borne contact and mother-to-child. Blood-borne transmission mostly results from sharing of needles/syringes among injecting drug users. Rarely, it can occur in health care setting after a worker sustained needle-stick injury from an HIV infected patient. In exceptional circumstances, there may be a very small chance of HIV transmission from health care worker to patient during invasive procedures. Substantial overseas literature and experience indicate an extremely low risk of health care worker-to-patient HIV transmission. Worldwide there have been only four reports of HIV transmissions from infected and untreated health care workers[*]. Lookback investigations in the United Kingdom involving about 10 000 patients cared for by infected workers throughout many years had not identified a single case of transmission.

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[*] The four cases are: a dentist in US reported in 1992 (six patients infected – route of transmission unclear), an orthopaedic surgeon in France reported in 1999 (one patient infected), a gynaecologist in Spain reported in 2006 (one patient infected) and a nurse in France reported in 2000(one patient infected – route of transmission unclear).

3. In Hong Kong, all hospitals have adhered to standard infection control measures which effectively minimize transmission of blood-borne pathogens, including HIV, in health care settings. . In this connection, the Scientific Committee on AIDS made specific recommendations of Standard Precautions (SP) for control of HIV transmission in health care settings. The specific recommendations, adapted from the US guidelines on hospital and health care personnel infection control practice, is a set of precautionary measures including good hand hygiene practices and use of protective barriers during routine patient care carried out by health care workers. SP encompasses precautions in the handling of blood, all body fluids, secretions and excretions; and avoidance of contamination of non-intact skin and mucous membrane. Adherence of Standard Precautions effectively minimizes transmission of blood-borne pathogens, including HIV, in health care settings. Since 1984 when HIV case data were routinely collected, no case of HIV infection has been identified as resulting from patient-to-provider or provider-to-patient in health care settings.

MANAGEMENT SYSTEM IN PLACE IN HONG KONG

ACA Guidelines and its development

4. Arising from self-disclosure of HIV status of an infected dentist in Hong Kong in 1993, the government-appointed Advisory Council on AIDS (ACA) developed "HIV Infection and Health Care Workers: Recommended Guidelines" (the Guidelines) in 1994. It sets out the general principles and recommendations on infection control, HIV testing and counseling, disclosure of HIV status, together with the rights and expected role of an infected health care worker. The General Principles of the Guidelines are listed below:

(a) The most effective means of preventing HIV transmission in health care setting is through adherence to universal precautions (later referred to as SP), thereby decreasing the risk of direct exposure to blood and/or body fluids.

(b) Voluntary instead of mandatory HIV testing is the best way of encouraging people (including health care workers) at risk of infection to seek counseling and appropriate treatment.

(c) Health care workers should consider receiving counseling and HIV antibody testing if they have reason to suspect that they have been infected.

(d) 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 consent of the worker. Maintaining confidentiality is one way to prevent interference with individual privacy. It is also essential in encouraging the health care workers (either infected or at risk of infection) to receive proper counseling and management.

(e) Currently there is no justification for restricting practice of health care workers on the basis of the HIV status alone. Restriction or modification, if any, should be determined on a case-by-case basis.

5. The ACA reviewed the Guidelines in 2003 and considered that the principles and recommendations of the Guidelines remained valid. The

Guidelines were updated and further promulgated in 2003 (a copy at **Annex A**).

The Expert Panel on HIV Infection of Health Care Workers

6. Upon ACA's recommendation, the Department of Health (DH) set up an Expert Panel on HIV Infection of Health Care Workers (the Expert Panel) in 1994. The Expert Panel serves to assess anonymous referrals from the attending doctors of infected health care workers, and to provide advice on the need of job modification and lookback investigation on a case-by-case basis. All information is treated in strict confidence in observance with the Guidelines, reflecting the Expert Panel's emphasis to uphold confidentiality in encouraging health care workers to seek appropriate HIV counseling, testing, care and assistance. The Expert Panel is currently chaired by Prof Lam Tai-hing and its the terms of reference and membership list are at **Annex B**.

7. Over the years, the Expert Panel has set up a referral system to provide advice to attending doctors of HIV infected health care workers, assess referred cases and issue recommendations. It regularly issues reminders to health care professions through professional councils, drawing their attention to the Guidelines as well as the work of the Expert Panel. The Expert Panel also monitors closely international development on the subject of HIV infection and health care workers, and submit reports to the Director of Health on the progress of its work, including an account of infected health care workers referred to the Expert Panel for advice.

8. As of the end of March 2012, the Expert Panel has assessed twenty cases. The infected health care workers belong to a variety of health care professions, including doctor, nursing, dental and allied health. As always,

the Expert Panel has maintained confidentiality of all personal information of all the cases assessed.

A recent referral to Panel in 2012

9. The Expert Panel received a referral of HIV infection of a public hospital health care worker in January 2012 and convened a first meeting three days later to assess the case. It was decided that there was no ongoing risk of transmission to patients. However, in view of the complexity of the case and taking a prudent attitude, the Expert Panel then considered the need to seek more information and views from other local and overseas experts for further discussion in order to reach a final recommendation for subsequent management, in particular on the need for patient lookback.

10. The Expert Panel held a second meeting on March 26, which was joined by two external experts, namely Professor Julian Gold, Director of the Albion Street Centre and World Health Organization Regional Collaborating Centre of HIV/AIDS, and Dr Luk Hung-to, President of the College of Surgeons of Hong Kong. Representatives from the Hospital Authority (HA) were also in attendance. The Expert Panel made careful examination and deliberation of the updated available information of the case, the scientific studies on provider-to-patient HIV transmission, overseas experience on patient lookback investigations, as well as exposure risk assessment of surgical procedures and infection control measures in relation to the case. After due consideration of the case, the Expert Panel is of the view that the risk of HIV transmission from health care workers to patients is low. Nonetheless, taking precautionary principle in balance with scientific evidence and specifics of the case, the Expert Panel recommended precautionary lookback for about 140 priority patients previously under the care of the health care worker in the past two years. One-off HIV testing of

such patients is adequate to clarify infection status. These recommendations were conveyed to the referring doctor of the case and HA.

11. HA commenced the patient lookback exercise on 26 March. The patients were contacted and offered an appointment for HIV blood test. The laboratory testing was conducted centrally by the Public Health Laboratory Centre under the Centre for Health Protection of DH. HA also set up a Hotline to handle patient and public enquiry. At the same time, the AIDS Hotline of DH also addressed public calls directly or indirectly related to the incident.

12. The Expert Panel convened a third meeting on 18 April 2012 to review the outcome of the lookback investigation. 130 of the 137 traceable priority lookback patients underwent blood screening and all were tested HIV negative while the other 7 patients refused follow up. The Expert Panel is of the view that the lookback has been thoroughly conducted for the priority patients, with a very high follow-up rate and all were tested HIV negative. Echoed by Prof Gold, an external expert on this case assessment, the Expert Panel considers that the lookback has achieved its objective. There is no need for another phase of lookback. The Expert Panel reiterates the importance of adhering to standard precaution for infection control and upholding confidentiality of HIV infected people including health care workers.

13. During its 78th meeting held on 20 April 2012, ACA reviewed the mechanism to safeguard against HIV transmission from infected health care worker to patient, and agreed to consult the Expert Panel on the need to review the Guidelines for further deliberation by ACA.

Other mechanisms to minimize risk of provider-to-patient HIV transmission

14. Adherence to Standard Precautions is of paramount importance to minimize transmission of blood-borne pathogens, including HIV, in health care settings. This protects both the health care providers and the patients to the greatest extent.

15. The easy availability and accessibility of quality HIV testing and treatment services is also crucial in encouraging infected or at-risk people, including health care workers to seek assistance and care.

16. Lastly, respect of patient confidentiality is well-recognised under health care professional practices and public expectation. Given the unique stigma attached to HIV/AIDS, upholding confidentiality of HIV infected patients, including infected health care workers, is internationally endorsed and locally respected and protected under the legal system. Failing that, infected or at-risk people would be reluctant to come forward for HIV testing, treatment and care, which is detrimental to the effective prevention and control of AIDS and hence public interest and public health.

ADVICE SOUGHT

17. Members are invited to note the content of this paper.

Food and Health Bureau
May 2012

Annex A

Reprint of

HIV Infection and the Health Care Workers - Recommended Guidelines ACA, 1994

Advisory Council on AIDS

December 2003

Preface

Ten years has passed since the publication of the *HIV Infection and Health Care Workers: recommended guidelines* by the Advisory Council on AIDS in 1994. Scientific evidence cumulated in the last decade has reconfirmed that transmission of HIV in health care setting through infected health care worker could occur but the risk is extremely small. Nevertheless, the subject cannot be taken lightly, given its complexity and potential adverse consequences.

The principles enshrined in the 1994 Guidelines have clearly stood the test of time. In this reprint of the Guidelines, the Appendices have been brought updated and a workflow of the newly appointed Expert Panel is included. All health care workers are advised to adopt the practice contained in the guidance for addressing this delicate issue of HIV infection in health care workers. Attending physicians of HIV infected health care workers are reminded to seek advice from the Expert Panel, in the event that a diagnosis is made. I believe that the Guidelines would also be useful to the many professional bodies and organizations in the handling of HIV infected health care workers in Hong Kong.

I wish to thank all members of the Advisory Council on AIDS for their contribution in supporting the formulation of effective strategy in HIV prevention and care, and the hard work of the outgoing Expert Panel in the past ten years.

(Dr. Homer Tso)
Chairman of the Advisory Council on AIDS
December 2003

HIV infection and the health care workers – recommended guidelines

(1) BACKGROUND

1.1

AIDS (Acquired Immunodeficiency Syndrome) is caused by a retrovirus named HIV, the human immunodeficiency virus. The syndrome, characterised by development of complications like opportunistic infections or tumours, was first described in 1981 in the USA. The human race is now hard hit by the pandemic. An estimated total of 15 million people worldwide have already been infected so far.

1.2

HIV is transmitted largely 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 over three-quarters of the infection have been contracted through sex, and largely heterosexual contacts.

1.3

HIV infection has been reported to occur in health care settings by exposure to contaminated blood through cutaneous injuries or mucous membranes. The estimated risk of contracting the virus after such injuries or exposure to infected blood is 0.4%.

1.4

The chance of HIV transmission from an infected health care worker to his / her client is much lower. The CDC (Centre for Diseases Control) in Atlanta has reported that six patients of an HIV-positive dentist in Florida were infected since 1990. There is still controversy as to how the transmission has occurred but this is the only case documented so far. In other 'look-back' studies of over 15000 clients of 32 HIV infected health care workers, including dentists and surgeons, none was found to have caught the virus.

1.5

Taken the extremely low risk of HIV transmission in the health care setting, universal precaution in handling blood and other body fluids was generally advocated as the most effective measure in further minimising the chance of infection. HIV has been isolated from blood, semen, saliva, tears, urine, vaginal secretion, cerebrospinal fluid,

synovial fluid, breast milk and amniotic fluid of infected individuals. However only blood, blood products, semen, vaginal secretion and breast milk have been linked to HIV transmission.

(2) GENERAL PRINCIPLES

2.1

The most effective means of preventing HIV transmission in health care setting is through adherence to universal precautions, thereby decreasing the risk of direct exposure to blood and/or body fluids.

2.2

Voluntary instead of mandatory HIV testing is the best way of encouraging people (including health care workers) at risk of infection to seek counselling and appropriate treatment.

2.3

Health care workers should consider receiving counselling and HIV antibody testing if they have reason to suspect that they have been infected.

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 consent of the worker. Maintaining confidentiality is one way to prevent interference with individual privacy. It is also essential in encouraging the health care workers (either infected or at risk of infection) to receive proper counselling and management.

2.5

Currently there is no justification for restricting practice of health care workers on the basis of the HIV status alone. Restriction or modification, if any, should be determined on a case-by-case basis.

(3) GUIDELINES

3.1

Enforcement of Infection control

The best way of preventing blood-borne diseases is to treat all blood (and certain body fluids) as potentially infectious. Universal precautionary measures should be adopted when handling blood, 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 extremely low, and good simple hygienic measures should be sufficient.

Sound infection control practice with appropriate quality assurance should be implemented at all levels, taking into consideration factors unique to individual setting.

(a) Infection control committee

Rapid advancement in medicine and technology has meant that it is essential to keep updated on issues relating to infection control practice. Infection control committee should efficiently serve the functions of developing, promulgating and updating infection control policies in each institution and for each clinical specialty.

(b) Written infection control guidelines

Written infection control guidelines on universal blood/body fluid precaution should be developed and periodically updated in all health care settings – by infection control committees or equivalents for institutions/government departments and by professional bodies for health care professionals in private and solo practice.

(c) Infection Control training

The subject of infection control should be made an integral part of undergraduate, pre-registration or pre-employment training for all health care workers who may come into contact with blood/body fluids. Similarly regular courses tailored to the infection control needs of individual specialties, should be organised by professional bodies, universities/polytechnics as well as relevant government departments. It should be made known that those who fail to use appropriate infection control techniques to protect patients may be subject to charges of professional misconduct by the relevant governing body.

3.2 *HIV Counselling & related services for health care workers*

Information and counselling should be made easily available for health care workers who may have been exposed to HIV through risk behaviour, exposure to contaminated blood/blood products or occupational accidents. The importance of voluntary, confidential and anonymous counselling and HIV testing should be underlined.

3.3 Rights & responsibilities of HIV infected health care worker

3.3.1 Confidentiality

In general, health care workers are not required to disclose their HIV status to their employers or clients. HIV infection and AIDS are not notifiable diseases by law in Hong Kong, and reporting is on a voluntary basis. 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 specialists involved in evaluating an infected health care worker may need to know his HIV status. In exceptional circumstances, breach of confidentiality may be warranted, for instance when an HIV infected health care worker refuses to observe the restrictions and patients have been put at risk.

3.3.2 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, employers should make arrangement for alternative work, with provision for retraining and redeployment.

3.3.3 Ethical issues

An HIV infected health care worker should seek appropriate counselling and to act upon it when given. It is unethical if one fails to do so as patients are put at risk. The attending doctor of an HIV-infected health care worker should seek the advice of the expert panel formed by the Director of Health on the areas of management and possible need for job modification. 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 Medical/Dental Council for appropriate action.

3.3.4 Source of advice

Referral to the expert panel should be made by the health care worker's attending physician. Formed by the Director of Health, the panel shall decide on whether job modification, limitation or restriction is warranted. A case-by-case evaluation would be undertaken considering multiple factors that can influence risk and work performance.

3.4 Responding to the public

The issue of HIV transmission in health care setting has caused much public concern despite the minimal risk incurred. Focusing on health care setting in fact deflects the society from proper attention to the major transmission routes through sex and drug

abuse. The health care profession has the duty of constantly reassuring the public, and to educate the clients on how HIV can and cannot be contracted. More importantly, the public looks on the health care profession as an example of how AIDS should be dealt with. By adhering to the guidelines for prevention of HIV infection in the health care setting, public fear can be allayed.

Appendix I

Advisory Council on AIDS

The Advisory Council on AIDS (ACA) was first appointed by the government in 1990. The current term is from 2002 to 2005, with the following terms of reference.

- To keep under review local and international trends and development relating to HIV infection and AIDS;
- To advise Government on policy relating to the prevention, care and control of HIV infection and AIDS in Hong Kong; and
- To advise on the co-ordination and monitoring of programmes on the prevention of HIV infection and the provision of services to people with HIV/AIDS in Hong Kong.

The ACA was underpinned by three Committees, namely:

1. Committee on Promoting Acceptance of People Living with HIV/AIDS (CPA)
2. AIDS Prevention and Care Committee (APCC)
3. Scientific Committee on AIDS (SCA)

The current membership of ACA is:

Chairman :	Dr TSO Wei-kwok, Homer, *JP*
Vice-Chairman :	Director of Health
Members :	Ms CHAN Yu
	Prof CHEN Char-nie, *JP*
	Rev CHU Yiu-ming
	Prof CHEUNG Mui-ching, Fanny
	Dr FAN Yun-sun, Susan
	Ms FANG Meng-seng, Christine
	Prof HO Suk-ching, Sara
	Prof LAM Tai-hing
	Prof LAU Yu-lung
	Dr LI Chung-ki, Patrick, *BBS*
	Prof MAK Ping-see, Diana
	Dr TAN Richard
	Mrs WONG IP Wai-ying, Diana
	Prof WONG Lung-tak, Patrick, *JP*
	Chief Executive of Hospital Authority or Representative
	Director of Social Welfare or Representative
	Secretary for Education and Manpower or Representative
	Secretary for Health, Welfare and Food or Representative
Secretary :	Dr LEE Shui-shan
Special Advisor :	Dr Tim BROWN – Special Advisor to APCC
	Ms SHEN Jie – Special Advisor to SCA

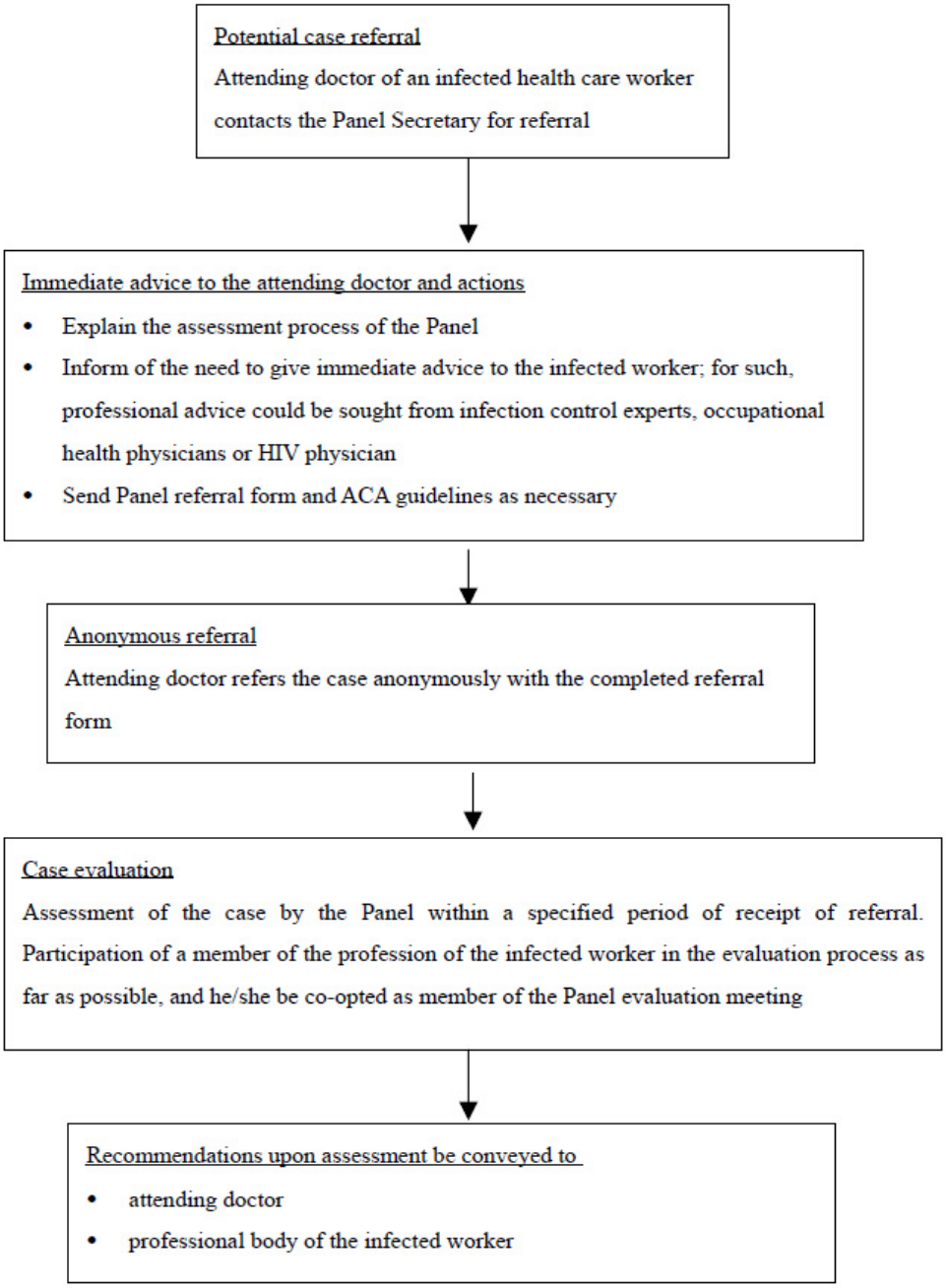
Appendix II

Useful telephone numbers and websites

Expert Panel of HIV Infection and Health Care Workers	2780 4390
AIDS Hotline	2780 2211
Integrated Treatment Centre	2116 2898
Special Medical Service, Queen Elizabeth Hospital	2958 6571
Occupational Health Clinic	2343 7133
HIV antibody test, Public Health Laboratory Centre	2319 8250
Therapeutic Prevention Clinic, Department of Health	2116 2929
T lymphocyte subset test, Public Health Laboratory Centre	2319 8234
Hong Kong Virtual AIDS Office	www.aids.gov.hk
Hong Kong Advisory Council on AIDS	www.aca-hk.com

Appendix III

Proposed workflow of Expert Panel on HIV Infection of Health Care Workers (2004-2006)



Annex B

Expert Panel on HIV Infection of Health Care Workers

Terms of reference

- To assess and advise on job modification of HIV-infected health care worker on a referral basis,
- To relay case recommendations to the referring doctor, the respective professional body and the Director of Health,
- To advise Director of Health on the need of conducting lookback and other public health intervention for cases assessed,
- 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.

Membership List (2010-2012)

Chairman
Prof Lam Tai-hing,

Members
Dr Lai Sik-to
Dr Lo Yee-chi
Miss Tsao Wai-yee
Dr Ho Mang-yee

Secretary
Consultant of the Special Preventive Programme of the Centre for Health Protection , Department of Health