Malaysian Medical Council

GUIDELINE ON BLOOD BORNE VIRAL INFECTIONS [Including HIV, HBV and HCV]

PART ONE: PREAMBLE

1. Contents

Part One:
1. Contents
2. Introduction

Part Two:
3 Blood Borne Virus Infections HIV, HBV and HCV

Part Three:
4. BBV and Medical Practitioners
5. Counselling & Responsibilities of Med Practitioners
6. Procedures to be adopted
7. Role of Responsible Physician
8. Role of Medical Practitioner
9. Exposure Prone Invasive Procedures
10. Principles of Employing Med Practitioners with BBV
11. Care of Med Practitioner with BBV
12. Confidentiality concerning infected MP
13. Patient Notification
14. Medical Students
15. Conclusions
16. **References**

Annexure
- A General Duties and Obligations of Medical Practitioners regarding Blood Borne Viral Infectious Diseases
- B Measures to Prevent Occupational Transmission of BBV
- C Post-exposure Prophylaxis
- D. Categories of Invasive Procedures (Exposure Prone)
- E Patient Notification in the event of Infection from MP
- F Rights of People Living with HIV

2. Introduction

Infections due to Blood Borne Viruses (BBV), particularly HIV infections, have stirred considerable global awareness and conscientious and concerted efforts to ameliorate the suffering of people living with an illness for which there is no cure. The rights of people living with HIV and the political declarations which have been accepted by governments are listed in ***Annexure E.***

Hepatitis C virus infection is also continuing to be of major concern in medical practice because of serious liver complications, with definitive treatment still not available.

This MMC Guideline, which relates to blood-borne viral infections (BBV) which are of importance in possible infection of patients from healthcare workers, and *vice versa*, will address primarily HIV, HBV and HCV infections as they affect medical practitioners (and healthcare workers of all categories).

The Guideline, while accepting that medical practitioners living with HIV or HBV or HCV need to be managed in the manner no different from that of any other person similarly afflicted, with adjustments in their professional duties, also takes cognisance of the rights of the patients (and member of the public) that they should not be affected or infected through any accidental transmission, however rare and remote, in the course of medical treatment or management.

This is particularly so in view of the lack of definitive or permanent cure for the more serious blood-borne viral infections at the present time.

PART TWO: BLOOD-BORNE VIRUS INFECTIONS

3. Outline of Blood-Borne Virus Infections

Human Immunodeficiency Virus (HIV), Hepatitis B (HBV), Hepatitis C (HCV) infections are severe and serious illnesses caused and spread by Blood-Borne Viruses. These viruses are considered transmissible by blood or other body fluids. There is a small remote possibility that a medical practitioner infected with one or more of these diseases may transmit the virus while performing exposure-prone invasive procedures. Standard infection control precautions will reduce this risk significantly.

Infected medical practitioners must not merely rely on their own assessment of the risk they pose to patients. The Malaysian Medical Council, after due process, will decide on whether they can be allowed to continue in clinical appointments with restrictions, or strictly in non-clinical appointments.

“If you know that you have, or think that you might have, a serious condition that you could pass on to patients, or if your judgment or performance could be affected by a condition or its treatment, you must consult a suitably

qualified colleague. You must ask for and follow their advice about investigations, treatment and changes to your practice that they consider necessary. You must not rely on your own assessment of the risk you pose to patients." (General Medical Council).

3a. HIV Infection

The Human Immunodeficiency Virus (HIV) is a special type of virus known as a retrovirus. Retroviruses spread by breaking down the DNA in cells and then reassembling to make copies of themselves. Retroviruses are challenging to treat as they can rapidly mutate (alter) into new strains of virus.

HIV infects special cells, called CD4 cells, that are found in the blood and are responsible for fighting infection. After becoming infected, the CD4 cells are destroyed by HIV. Although the body will attempt to produce more CD4 cells, their numbers will eventually decline and the immune system will stop working. This leaves a person who is infected with HIV with a high risk of developing a serious infection or disease.

Transmission

HIV is spread through the exchange of bodily fluids.

HIV has been isolated from blood, semen, vaginal secretions, saliva, tears, urine, breast milk, and cerebrospinal, synovial and amniotic fluids. However, only blood, blood products, semen, vaginal secretions, donor organs and tissues and breast milk have been implicated in the transmission of infection.

A person may have been exposed to HIV infection through:

- unprotected sexual intercourse, including oral and anal sex between men;
- sharing injecting equipment (needles) whilst misusing drugs;
- unprotected heterosexual intercourse;
- engagement in invasive exposure-prone medical, surgical, or other healthcare services with inadequate infection control precautions;
- significant occupational exposure to HIV infected material in any circumstances.

An **infected pregnant mother** can transmit the infection to her unborn baby.

It is **not** transmitted through casual contact, coughing, sneezing, by sharing a toilet, by sharing eating utensils, or by consuming food or beverages handled or prepared by someone with HIV.

Therefore, somebody living with HIV in the workplace is **not** a risk to others.

The circumstances in which HIV could be transmitted from an infected health care worker to a patient are limited to invasive exposure prone procedures in which

injury to the health care worker could result in the worker's blood contaminating the patient's open tissues. This is described as "bleed-back" in this Guidance.

Existing evidence indicates that there is a far greater risk of transmission of HIV from infected patients **to** health care workers than **from** infected workers to patients. Up to June 1999, there had been 102 cases worldwide of health care workers in whom sero-conversion was documented after occupational exposure to HIV from patients. Five of these were cases in which transmission occurred in the UK.

Treatment

There is no cure for HIV and no vaccine to stop someone from becoming infected. However, since the 1990s, treatments have been developed that enable most people with HIV to stay well and live relatively normal lives.

Acquired Immune Deficiency Syndrome (AIDS)

AIDS is a term that is used to describe the later stages of HIV, when the immune system has stopped working and the person develops a life-threatening condition, such as, *Pneumocystis jerovecii* pneumonia, sarcoma, lymphoma, encephalopathy, toxoplasmosis, or carcinoma.

The term AIDS was first used when the exact nature of the HIV virus was not fully understood. However, the term is no longer in use because it is too general to describe the many different conditions that can affect somebody with HIV. The terms advanced or late-stage HIV infection is now widely preferred.

3b. Hepatitis B Virus (HBV) infection

This is a blood-borne viral infectious illness caused by hepatitis B virus (HBV) which infects the liver of *hominoidae* (primate family), including humans, and causes hepatitis. Originally known as "serum hepatitis", the disease has caused epidemics in parts of Asia and Africa, and it is endemic in China. About a third of the world's population, more than two billion people have been infected with the hepatitis B virus. This includes 350 million chronic carriers of the virus.

Transmission

Transmission of hepatitis B virus results from exposure to infectious blood or body fluids containing blood, semen, vaginal secretion and breast milk

Possible forms of transmission therefore include:

- unprotected sexual contact,
- blood transfusions,
- re-use of contaminated needles & syringes, and
- Vertical transmission from mother to child during childbirth.

Treatment

Acute hepatitis B infection does not usually require treatment because most adults clear the infection spontaneously. They may live for many years without symptoms. However, a proportion takes 20 to 30 years to develop cirrhosis.

Early antiviral treatment may only be required in less than 1% of patients, whose infection takes a very aggressive course (fulminant hepatitis) or who are immuno-compromised.

Chronically infected individuals with persistently elevated serum alanine aminotransferase, a marker of liver damage, and HBV DNA levels are candidates for therapy to reduce the risk of cirrhosis and liver cancer (which may take 20 to 30 years to develop).

The most important measure whereby Healthcare workers can be protected against HBV is by immunisation, which provides protection in up to 90% of recipients. However, immunisation is not a substitute for good infection control practice since it provides no protection against infection with other BBVs.

3c. Hepatitis C Virus (HCV)

HCV is the main cause of what was previously known as non-A-non-B hepatitis. This is an infectious disease affecting the liver, caused by the hepatitis C virus (HCV).

Transmission

HCV is most frequently acquired by direct blood-to-blood contact and the commonest mode of transmission is the sharing of blood contaminated injecting equipment by injecting drug users. Both sexual and perinatal transmission can occur but in general these are less efficient modes of transmission.
Injection drug users are at increased risk for getting hepatitis C because they may be sharing needles or other drug paraphernalia (includes cookers, cotton, spoons, water, etc.), which may be contaminated with HCV-infected blood. In the US, an estimate of 60-80% of recreational drug users has been infected with HCV.

Blood transfusion, blood products, or organ transplantation prior to implementation of HCV screening is a decreasing risk factor for hepatitis C.

Medical or dental equipment may harbor contaminated blood if improperly sterilized and in this category are needles or syringes, hemodialysis equipment, oral hygiene instruments, and jet air guns.

A cDNA clone from the hepatitis C virus genome was first isolated in 1989 and reliable tests to screen for the virus were not available until 1992. Therefore, those who received blood or blood products prior to the implementation of screening the blood supply for HCV may have been exposed to the virus. Blood products include clotting factors (taken by hemophiliacs), immunoglobulin, Rhogam, platelets, and plasma.

Medical and dental personnel, first responders (e.g., firefighters, paramedics, emergency medical technicians, law enforcement officers), and military combat personnel can be exposed to HCV through accidental exposure to blood through accidental needle sticks or blood spatter to the eyes or open wounds.

Documented cases of hepatitis B and hepatitis C infections have occurred in patients operated on by hepatitis B or C infected medical practitioners.

Hepatitis C is a strictly human disease. It cannot be contracted from or given to any other animal.

Treatment

There is at present no vaccine to prevent HCV infection.

Most people have few, if any, symptoms after the initial infection, yet the virus persists in the liver in about 85% of those infected. Persistent infection can be treated with medication, peg-interferon and ribavirin being the standard-of-care therapy. Fifty-one percent are cured overall. Those who develop cirrhosis or liver cancer may require a liver transplant, and the virus universally recurs after transplantation.

Other Hepatitis Viruses

Hepatitis D virus (HDV)
HDV causes infection only in those who have active HBV infection. HDV infection can occur either as co-infection with HBV or as super-infection of an HBV carrier. Since HDV depends on an HBV-infected host for replication, prevention of HBV infection by immunisation will also prevent HDV infection.

GB virus-type C (Hepatitis G virus)
Recently a further BBV has been described, provisionally designated either as GBV-C agent or hepatitis G virus. The full clinical significance of infection with this virus, whether it is a true hepatotropic virus, and its natural history are as yet unknown.

PART THREE: BLOOD-BORNE VIRUS INFECTIONS AND MEDICAL PRACTITIONERS

4. Medical Practitioner with BBV infection and the Procedure to be Adopted

4.1 Provisionally Registered Medical Practitioner

A medical graduate provisionally registered for houseman training and diagnosed to be infected with BBV (HIV-, or HBV or HCV), in whatever stage of houseman training or in the final year of the medical course, and irrespective of the status of the disease and viral load, will be counselled and the following advice and options given:

a. If he chooses not to enter into, or after commencing wishes to discontinue, the houseman training:

   (i) he will not be fully registered by virtue of not completing houseman training;
   (ii) he will be advised and guided to seek other healthcare related courses (e.g. hospital administration, medical ethics, etc).
   (iii) he may be employed in administrative jobs (as a graduate in medicine) in the Ministry of Health or any other healthcare service or facility..

b. If he chooses to enter and complete the houseman training he may be allowed to do so with special restrictions and supervision, as designed and permitted by the President of Malaysian Medical Council. He may be trained in clinical departments in hospitals under a Responsible Physician (as defined in later sections). Exceptions may have to be made in the postings currently required under a two-year houseman training programme, as he will be prohibited from performing or assisting in Category II and III invasive exposure-prone procedures, as in Annexure B.

c. Upon satisfactory completion of houseman training under 4(1)b above, he is eligible for full registration with conditions and limitations on his practice. He will be subjected to evaluation by the Responsible Physician and the Medical Review Panel (Fitness to Practice Committee) of the Malaysian Medical Council.

4.2 Fully registered medical practitioner

a. If the diagnosis of BBV infection is made **after satisfactory completion** of the two-year compulsory houseman training, then he will be **counselled**. He is eligible for full registration as provided for under the Medical Act 1971. However, if he wishes to continue practice as a medical practitioner, his subsequent service and training will be with specifications as in b. (***see below***).

b. If the diagnosis of BBV infection is made **any time** during the period of full registration, (including during compulsory service), whether in public or private practice, the practitioner will be counselled and advised and he will be allowed to continue to practise with specifications (***see below***).

c. A fully registered medical practitioner found to be living with HIV, HBV or HCV will be counselled. He will **be allowed to enter into any specialty training** programmes in which there is no high exposure prone risk (See Annexure C). He may be allowed into specialty training where there is no contact at all with patients. Examples of such specialty training are hospital administration, non-clinical pathology or basic sciences (anatomy, etc).

d. A fully registered medical practitioner who already holds a recognised postgraduate specialty degree/diploma/certification, and in public or private practice, and diagnosed with HIV or hepatitis, will be counselled and advised **not to be involved in any practice in which there is possibility, even remote, of** a known risk of infecting patients in the course of treatment.

In all the above instances, the fully registered medical practitioner will be counselled and reviewed by the Fitness to Practice Committee (Medical Review Panel) of the Malaysian Medical Council and decisions and recommendations will be submitted to the President of the Council for final decision.

5. Factors in Counselling and Responsibilities of Medical Practitioner living with Blood-Borne Viral Infections (HIV, HBV or HCV):

a. The practitioner should be aware, or made to be aware, of the nature and prognosis of Blood-Borne Viral Infections.

b. The practitioner shall be made aware that he is totally responsible for his own status of the disease and its implications.

c. A medical practitioner who has any reason to believe he may have been exposed to BBV infection, in whatever circumstances, must promptly seek and follow confidential professional advice on whether he/she should be tested for HIV.

d. Specifically, the onus of keeping himself infection-free (through treatment and avoidance of further exposure) and the onus of avoiding infecting others, particularly patients and other healthcare staff, bear heavily and entirely on him. He will be held totally responsible and accountable, if so proven, for any indiscretions or deviations from this requirement.

e. The practitioner should be aware, or made to be aware, further that he is under ethical and legal duties to protect the health and safety of his patients at all times exercising reasonable care for the health and safety of his own self and of others, such as colleagues and other healthcare staff.

f. The practitioner should at all times comply with any restrictions which may be imposed on his practice by his employer and his supervisors, and co-operate with his employer in health and safety matters.

g. The practitioner, who has the responsibility of direct clinical care of patients, has a duty to keep himself informed and updated on the Codes of Professional Conduct and guidelines on BBV infection laid down by the Malaysian Medical Council and the Ministry of Health, and any other relevant guidance issued by any other regulatory bodies.

h. A self-employed medical practitioner living with HIV (and other BBV infections) has the general duties and obligations to conduct his work so that he and others are not exposed to health and safety risks.

i. The medical practitioner should be aware that in the event of any breach of the restrictions and stipulations listed above he may be subjected to disciplinary procedures by the Malaysian Medical Council.

It is generally preferable that a medical practitioner living with HIV (and other BBV infections) and allowed to continue with his practice, should be cared for and helped in his practice by a fellow medical practitioner who works with him or is in a clinic near him, and who should understand the restrictions placed on the practice of the practitioner living with HIV or any other blood-borne viral infections.

All medical practitioners should comply with institutional policies and procedures designed to protect patients. Healthcare providers have an ethical responsibility to promote their own health and well being, and a responsibility to remove themselves from care situations if it is clear that there is a significant risk to patients despite appropriate preventive measures.

6. Procedure to be adopted by a medical practitioner WITH BBV Infection

A medical practitioner who has reason to believe that he may have been exposed to BBV infection, or that he may be living with a BBV infection, is required to follow the steps laid down below:

a. Take leave from his professional duties immediately by informing in confidence his supervisor.

b. Seek confidential consultation with a physician who is an infectious disease specialist.

c. Give consent for the physician (the **"Responsible Physician**") to report to the President of the Malaysian Medical Council.

d. Submit to a Medical Review Panel (Fitness to Practice Committee) of the Malaysian Medical Council, if so required.

e. Consent for the recommendations of the Medical Review Panel (Fitness to Practice Committee) to be submitted to the President of the Council in confidence.

f. Comply with the decisions of the President of the Malaysian Medical Council with regards employment and restrictions to practice.

The practitioner may also in confidence directly contact the Secretary or the President of the Malaysian Medical Council, whereupon the President may direct, in confidence, that the matter be dealt with by an Infectious Disease Specialist or a Physician, referred to as the Responsible Physician, and a report submitted directly for his personal attention for further action.

6. The Role of the Responsible Physician

The “Responsible Physician” is the physician (preferably but not necessarily a specialist in treatment of infections) who manages the medical practitioner’s BBV infection and provides advice on matters relating to his practice. These may include

- the infected practitioner’s personal Physician and / or
- the Physician chosen by the President of the Malaysian Medical Council.

It is extremely important that the infected medical practitioner, or suspected to be infected practitioner, receive the same rights of confidentiality as any patient seeking or receiving medical care. The Responsible Physician, who works within strict guidelines on confidentiality, has a key role in this process, since he is able to act as an advocate for the practitioner and advisor to the employing authority

The Responsible Physicians can advise on issues of retraining and redeployment, or, if indicated, medical retirement.

The Responsible Physician shall send a report on the infected practitioner’s infection status to the President of the MMC, with the consent of the practitioner.

The President may then appoint a Medical Review Panel to advise him on any further management and employability of the practitioner.

There are occasions when an employer may need to be advised that a change in duties should take place. The medical practitioner’s infection status itself would not normally be disclosed without the practitioner’s consent. However it may become necessary in the public interest for the employer and the MMC to have access to confidential information where patients are, or may have been, at risk.

7. The role of the Medical Review Panel (Fitness to Practice Committee)

A registered medical practitioner with a BBV infection will be referred to a Medical Review Panel or Fitness to Practice Committee to be appointed by the President of Council.

The Medical Review Panel shall be composed of the Responsible Physician treating the practitioner, and at least four other members (including a specialist in the discipline of the practitioner if he has a specialist qualification), as appointed by the President of MMC.

The duties of the Medical Review Panel will be to:

a. Obtain a confidential briefing/report on the practitioner who is the subject of the Review from the Responsible Physician.
b. Suggest on the most appropriate action to be taken if the practitioner is to continue to be registered under the Act with regards job placement, restriction of duties, monitoring, further treatment, etc.

c. Submit the suggestions and recommendations to the President of Council for further action.

8. Exposure Prone Procedures

Exposure prone procedures are those invasive procedures where there is a risk that injury to the healthcare 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 of 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.

The following body fluids and tissue should be handled with the same precautions as blood

(i) Body fluids and secretions
Cerebrospinal fluid
Peritoneal fluid
Pleural fluid
Pericardial fluid
Synovial fluid
Amniotic fluid
Semen
Vaginal secretions
Breast milk

(ii) Any other body fluid containing visible blood, including saliva in association with dentistry

(iii) Unfixed tissues and organs

Practitioners with BBV infections with zero or acceptable viral load, may perform Category I and Category II procedures as listed in Annexure C.

They shall not perform or assist in procedures on Category III patients.

9. Principles of employing a medical practitioner with BBV infection

The restriction of such a medical practitioner **including those living with BBV infection,** for the purpose of protecting patients from risk of infection, such as the requirement to refrain from performing exposure prone procedures, would be considered justifiable.

It is important that such a medical practitioner, upon confirmation of BBV infection, and if recommended to practise after review by the Medical Review Panel (or Fitness to Practice Committee) and final endorsement by the President of MMC, should be allowed to practise only Category I or II procedures with standard precautions.

The possibility of employing an infected practitioner in a purely non-clinical or administrative capacity is worthy of consideration.

Patient safety and public confidence are paramount and dependent on the BBV infected, or potentially infected, medical practitioner who has been diagnosed with BBV infection and who has disclosed this information to his employer. Employers should promote a climate that encourages such confidential disclosure.

Physician or specialist (the Responsible Physician) who manages such medical practitioner living with BBV infection has to periodically report to the President of MMC, who may then refer the practitioner to the Medical Review Panel (Fitness to Practise Committee) for further action as prescribed above.

The final decision about the place of employment and the type of work that may be undertaken by a medical practitioner living with BBV infection should be made on an individual basis, in conjunction with consultation with the Responsible Physician and the Medical Review Panel (Fitness to Practise Committee), taking into account the factors considered above.

[In the United Kingdom, HBV-infected providers who are HBeAg positive may not conduct exposure-prone invasive procedures; HBV-infected providers who are HBeAg negative but have HBV DNA levels of greater than 103 GE/mL may not conduct exposure-prone invasive procedures; and HBVinfected providers who are HBeAg negative and have HBV DNA levels of less than 103 GE/mL may conduct exposure prone invasive procedures but must be retested at least every 12 months to ensure that the level of viremia remains below 103 GE/mL. More recently, authorities in the United Kingdom have also recommended that HBV-infected healthcare providers who are HBeAg negative and who have pretreatment HBV DNA levels of 103–105 GE/mL could be allowed to perform exposure prone procedures if they are receiving suppressive oral antiviral therapy and if their viral loads have decreased to below 103 GE/mL. The major challenge associated with this latter recommendation is the development of an effective monitoring strategy to make certain that the circulating viral burden remains less than 103 GE/mL.]

10. Care of the Infected Medical Practitioner

The interests of the medical practitioner and his family are very important. Where possible, the practitioner should be kept informed of decisions about the patient notification exercise. With their family, they may need immediate practical or psychological support including measures to protect privacy. If the health care worker has been only recently diagnosed as HIV infected, access to counselling and specialist medical advice will be needed, including a consideration of antiretroviral drug therapy.

The worker or their family may wish to seek their own independent legal advice. If they do seek legal advice it will be helpful for the authority's legal advisers to keep in regular contact with those representing the health care worker.

Infected health care workers who normally perform exposure prone procedures as part of their duties will need to seek retraining or redeployment. Advice on the former can be obtained in the first instance from a specialist occupational health physician who may wish to take advice from the Ministry of Health/MMC Medical Review Panel.

11. Confidentiality concerning the BBV infected Medical Officer

It is extremely important that a BBV infected practitioner, particularly with HIV infection, receives the same rights of confidentiality as any patient seeking or receiving medical care. Physicians or specialists, who work within strict guidelines on confidentiality, have a key role in this process, since they are able to act as an advocate for the medical practitioner and adviser to the employing authority. They should adopt a proactive role in helping the medical practitioner to assess if he/she has been at risk of BBV infection and encourage him/her to be tested for BBV if appropriate.

There is a general duty to preserve the confidentiality of medical information and records. Breach of this duty is very damaging for the individuals concerned and it undermines the confidence of the public and of health care workers in the assurances about confidentiality which are given to those who come forward for examination or treatment.

In dealing with the media and in preparing press releases where necessary, it should be stressed that individuals who have been examined or treated in confidence are entitled to have their confidence respected.

Every effort should be made to avoid disclosure of the infected worker's identity, or information which would allow deductive disclosure. The use of personal identifiers in correspondence and requests for laboratory tests should be avoided and care taken to ensure that the number of people who know the worker's identity is kept to a minimum.

Any unauthorised disclosure about the BBV (particularly HIV) status of an employee or patient constitutes a breach of confidence and may lead to disciplinary action or legal proceedings. Employers should make this known to staff to deter open speculation about the identity of an infected health care worker.

The duty of confidentiality, however, is not absolute. Legally, the identity of infected individuals may be disclosed with their consent or without consent in exceptional circumstances where it is considered necessary for the purpose of treatment, or prevention of spread of infection. Any such disclosure may need to be justified.

In balancing duty to the infected health care worker and the wider duty to the public, complex ethical issues may arise. As in other areas of medical practice, a health care worker disclosing information about another health care worker may be required to justify their decision to do this. The need for disclosure must be carefully weighed and where there is any doubt the health care worker

considering such disclosure may wish to seek advice from his or her professional body.

The duties of confidentiality still apply even if the infected health care worker has died or has already been identified publicly.

12. Medical Students (Managed by Ministry of Higher Education, Malaysia)

Persons found to be living with HIV or hepatitis shall not be admitted to the medical course and should be appropriately counselled about alternate course of studies.

Students found to be living with HIV or hepatitis diagnosed while undergoing the medical course, in whatever year of study, shall be counselled and removed from continuing with their study.

Exceptions may be considered for students found to be HIV or hepatitis in their final year of the medical course to allow them to complete the course and sit for the final examination. Their subsequent training as houseman and employment will follow procedures listed in section 4.

Counselling may include the student undergoing a non-medical course of study in which there is no direct physical contact with the public.

13. Conclusions

A registered medical practitioner may be infected with BBV (HIV, HBV or HCV) in the course of his professional work or due to behavioural indiscretions.

It is within reason that while he is on treatment he could be employed in professional duties in which the possibility of transmission of the infection to patients is reduced.

There are non-clinical areas in which the infected medical practitioner can be employed, besides administrative posts in healthcare facilities and services.

It is also important to take the necessary steps to ensure confidentiality of the practitioner's illness and holistic care of the practitioner's family while he is so employed and being treated.

The steps to be taken if there is suspected or real transmission of BBV infection from the practitioner to a patient, which, on evidence however, is very rare if standard precautions are taken, are clearly important considerations.

Reference

1 Scottish Government Guidelines on AIDS in healthcare Workers

2 HIV Infected Healthcare Workers: Guidance on Management and Patient Notification. Department of Health UK, 2005

3 Guidelines for Oral Healthcare Practitioners infected with Blood-Borne viruses. Malaysian Dental Council. 2007

4 **http://www.nhs.uk/Conditions/HIV/Pages/Introduction.aspx**

5 AIDS Series Documents: Guidelines on the Management of Infected Healthcare Workers published by the Ministry of Health Malaysia 1995

6. Management of Healthcare Workers Infected with Hepatitis B Virus, Hepatitis C Virus, Human Immunodeficiency Virus, and Other Blood borne Pathogens: SHEA Positions Paper. Infection Control and Hospital Epidemiology: Vol. 18 No. 5. May 1997

7 General Medical Council: Supplementary Guidance on Good Medical Practice. "Healthcare workers who have, or may have, a serious communicable disease", Sept 2009

8. Dept of Health UK Advice for specialties

9. David K. Henderson, MD; Louise Dembry, MD, MS, MBA; Neil O. Fishman, MD; Christine Grady, RN, PhD; Tammy Lundstrom, MD, JD; Tara N. Palmore, MD; Kent A. Sepkowitz, MD; David J. Weber, MD, MPH; for the Society for Healthcare Epidemiology of America SHEA Guideline for Management of Healthcare Workers Who Are Infected with Hepatitis B Virus, Hepatitis C Virus, and/or Human Immunodeficiency Virus: Infection control and hospital epidemiology. vol. 31, no. 3 March 2010.

10. HIV post-exposure prophylaxis - guidance from the UK Chief Medical Officers Expert Advisory Group on AIDS, Dept of Health (September 2008)

ANNEXURE A: INFECTION CONTROL IN MEDICAL PRACTICE

Infection control in medical practice focuses primarily on using standard precautions to reduce the risk of transmission of blood and other body fluids-borne pathogens among medical practitioners and patients.

Standard infection control precautions are based on the concept that all blood and body fluids, secretions, and excretions except sweat (regardless of whether they are contaminated with blood) be treated as infectious when it comes into contact with non-intact skin and/or mucous membranes. This is because patients with blood-borne infections can be asymptomatic or unaware they are infected or they may fail to inform the medical practitioners

Standard precautions are procedure-specific and not patient specific. This means that the same set of infection control measures should be taken for each type of procedure irrespective of who the patient is (or what he may be suffering with).

The General measures to prevent occupational transmission of blood-borne viruses are listed in Annexure B.

Post-exposure Prophylaxis is considered in Annexure C.

Annexure B MEASURES TO PREVENT OCCUPATIONAL TRANSMISSION OF BLOOD-BORNE VIRUS

General measures to prevent occupational transmission of blood-borne viruses

1. Apply good basic hygiene practices with regular hand washing, before and after contact with each patient, and before putting on and after removing gloves. Change gloves between patients.

2. Gloves should be worn whenever there is contact with skin and mucous membranes and must be changed between patients.

3. Wearing double gloves in potentially unsafe operating fields provides some degree of protection.

4. Use instruments rather than hands for retracting and exploring tissue.

5. Avoid the simultaneous presence of the hands of two or more surgeons in the operative field;
6. Use sharps with injury prevention features (e.g. blunted suture needles, dental local anesthetic safety needles, retractable safety scalpel)

7. Follow approved procedures and use approved sharps disposal containers where sharps usage is essential, and exercise particular care in handling and disposal.

8. Transfer of sharp instruments between personnel such that only one person touches the instrument at a time, usually using a neutral zone (e.g., emesis basin or Mayo stand) from which instruments can be retrieved

9. For **all** clinical procedures, cover existing wounds, skin lesions and all breaks in exposed skin with waterproof dressings, or with gloves if hands extensively affected.

10. Health care workers with non-intact skin conditions and chronic skin disease such as eczema should avoid those invasive procedures which involve sharp instruments or needles when their skin lesions are active, or if there are extensive breaks in the skin surface. A non-intact skin surface provides a potential route for blood-borne virus transmission, and blood-skin contact is common through glove puncture that may go unnoticed.

11. Use protective clothing as appropriate, including protection of mucous membrane of eyes, mouth and nose from blood and body fluid splashes. Avoid wearing open footwear in situations where blood may be spilt, or where sharp instruments or needles are handled. Protection of the membranes of the eyes, mouth and nose from blood and body fluid splashes is especially important. Open footwear should not be

worn in situations where blood may be spilt, or where sharp instruments are handled.

12. Clear up spillages of blood and other body fluids promptly and disinfect surfaces according to established protocols.

13. Follow approved procedures for sterilisation and disinfection of instruments and equipment and disinfection of treatment/operating room after each patient.

14. Follow approved procedures for safe disposal of contaminated waste.

15. In the event of an Exposure Incident, the protocol for its management must be followed.

Annexure C POST-EXPOSURE PROPHYLAXIS

Post-exposure Prophylaxis

Post-exposure prophylaxis (PEP) may be offered for:

- Occupational exposure to **hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus** (HIV). The management of this risk should form part of an integrated workplace safety plan. Health workers and members of the practice team should be aware of the risk, how to reduce risk and what to do in the event of a needle stick injury.
- Non-occupational exposure to HIV, HBV and HCV (for example: sexual, paediatric and perinatal).

Rationale for post-exposure prophylaxis

Most of the evidence for efficacy has been gathered from occupational exposure. The evidence base is growing, although further randomised studies are needed. The main areas for consideration are:

- Pathogenesis of HIV infection. This suggests a window of opportunity after infection to prevent viral replication. A combination of primate and human studies suggests PEP is most likely to be effective when initiated as soon as possible (the gold standard is an hour, and certainly within 48-72 hours of infection) and continued for at least 28 days.
- Efficacy of antiretroviral treatment (ART) in primates. Results are promising and also suggest that early, adequate doses of ART given for long enough are important.
- Evidence of efficacy of ART in humans supports the rationale but some of this work is not directly applicable to occupational exposure studies on HIV-infected pregnant women).
- Assessment of risks and benefits of PEP.

When to prescribe post-exposure prophylaxis

PEP is unpleasant to take and the drugs used have side-effects and toxic effects. This needs to be balanced against the risk of transmission of HIV infection, estimated to be:

- 3/1,000 percutaneous exposures.
- <1/1,000 mucocutaneous exposures.

Quick guide to important factors when considering PEP and protocols for PEP

- Preventing avoidable exposure is of prime importance and guidance for this should be scrupulously followed.
- All healthcare workers (and students) should be informed and educated about the risks of occupational exposure and the importance of seeking urgent advice following needle stick injury or other occupational exposure.
- The views of the exposed healthcare worker should be taken into account when considering PEP; this is particularly important if the HIV status of the source patient is unknown or test results are delayed.
- Training should ensure that all know to whom to report.
- Every healthcare employer should have a policy on how to manage exposures, which ensures 24-hour cover. Occupational health services and accident and emergency departments should have access to expert on-call advice.
- There should be clear channels to gain expert advice about HIV and PEP drugs.
- PEP is up to 80% effective but requires speed of thought and action. The window of opportunity to prevent systemic viral dissemination is narrow.

Annexure D INVASIVE PROCEDURES

Category I: Procedures with minimal risk of blood-borne virus transmission

• Regular history-taking and/or physical or dental examinations, including gloved oral examination with a mirror and/or tongue depressor and/or dental explorer and periodontal probe
• Routine dental preventive procedures (eg, application of sealants or topical fluoride or administration of prophylaxis), diagnostic procedures, orthodontic procedures, prosthetic procedures (eg, denture fabrication), cosmetic procedures (eg, bleaching) not requiring local anesthesia
• Routine rectal or vaginal examination
• Minor surface suturing
• Elective peripheral phlebotomy

• Lower gastrointestinal tract endoscopic examinations and procedures, such as sigmoidoscopy and colonoscopy
• Hands-off supervision during surgical procedures and computer-aided remote or robotic surgical procedures
• Psychiatric evaluations

Category II: Procedures for which blood-borne virus transmission is theoretically possible but unlikely

• Locally anesthetized ophthalmologic surgery
• Minor soft tissue biopsy, or incision and drainage of an accessible abscess)
• Minor local procedures (eg, skin excision, abscess drainage, biopsy, and use of laser) under local anesthesia (often under bloodless conditions)
• Percutaneous cardiac procedures (eg, angiography and catheterization)
• Percutaneous and other minor orthopedic procedures, eg. Closed reduction of fractures and minor amputations (eg, amputations of fingers, toes, hands, or feet)

• Subcutaneous pacemaker implantation
• Bronchoscopy
• Insertion and maintenance of epidural and spinal anesthesia lines
• Minor gynecological procedures (eg, dilatation and curettage, suction abortion, colposcopy, insertion and removal of contraceptive devices and implants, and collection of ova)
• • Upper gastrointestinal tract endoscopic procedures
• Minor vascular procedures (eg, embolectomy and vein stripping)
• Minimum-exposure plastic surgical procedures (eg, liposuction, minor skin resection for reshaping, face lift, brow lift, blepharoplasty, and otoplasty)
• Total and subtotal thyroidectomy and/or biopsy
• Endoscopic ear, nose, and throat surgery and simple ear and nasal procedures (eg, stapedectomy or stapedotomy, and insertion of tympanostomy tubes)
• Ophthalmic surgery
• Assistance with an uncomplicated vaginal delivery
• Laparoscopic procedures
• Thoracoscopic procedures
• Nasal endoscopic procedures
• Routine arthroscopic procedures
• Minor Plastic surgery
• Insertion of, maintenance of, and drug administration into arterial and central venous lines
• Endotracheal intubation and use of laryngeal mask
• Obtainment and use of venous and arterial access devices that occur under complete antiseptic technique, using universal precautions, “no-sharp” technique, and newly gloved hands.

Category III: Procedures for which there is definite risk of blood-borne virus transmission or that have been classified previously as "exposure-prone"

• General surgery, including nephrectomy, small bowel resection, holecystectomy, subtotal thyroidectomy other elective open abdominal surgery

Cardiothoracic surgery, including valve replacement, coronary artery bypass grafting, other bypass surgery, heart transplantation, repair of congenital heart defects, thymectomy, and open-lung biopsy
• Open extensive head and neck surgery involving bones, including oncological procedures
• Neurosurgery, including craniotomy, other intracranial procedures, and open-spine surgery
• Non-elective procedures performed in the emergency department, including open resuscitation efforts, deep suturing to arrest hemorrhage, and internal cardiac massage
• Obstetrical/gynecological surgery, including cesarean delivery, hysterectomy, forceps delivery, episiotomy, cone biopsy, and ovarian cyst removal, and other trans-vaginal obstetrical and gynecological procedures involving hand-guided sharps
• Orthopedic procedures, including total knee arthroplasty, total hip arthroplasty, major joint replacement surgery, open spine surgery, and open pelvic surgery, Amputations, including major limbs (eg, hemipelvectomy and amputation of legs or arms) Male urological procedures (excluding transabdominal intrapelvic procedures)

• Extensive plastic surgery, including extensive cosmetic procedures (eg, abdominoplasty and thoracoplasty)
• Breast augmentation or reduction

• Transplantation surgery (except skin and corneal transplantation)
• Trauma surgery, including open head injuries, facial and jaw fracture reductions, extensive soft-tissue trauma, and ophthalmic trauma
• Interactions with patients in situations during which the risk of the patient biting the physician is significant; for example, interactions with violent patients or patients experiencing an epileptic seizure

• Any open surgical procedure with a duration of more than 3 hours, probably necessitating glove change.

Annexure E PATIENT NOTIFICATION

Patient Notification in the event of infection of a patient by an infected medical practitioner

Purpose of patient notification

In the event that a patient had been treated or managed by a medical practitioner, before it had been discovered that he is living with BBV infection, the notification of patients identified as having been exposed to a risk of HIV infection is considered necessary:

- to provide the patients with information about the nature of the risk to which they have been exposed;
- to detect any BBV infection, provide care to the infected person and advice on measures to prevent onward BBV transmission;
- to collect valid data to augment existing estimates of the risk of BBV transmission from an infected practitioner to patients during exposure prone procedures.

The overall objective of patient notification is to identify the patient population at a distinct risk of exposure to the infected practitioner's blood during exposure prone procedures. These patients should be contacted, offered counselling and encouraged to have an BBV antibody test. The decision on how far to look back should be taken by the Ministry of Health/employer on a case-by-case basis after a criteria-based risk assessment has been carried out.

Deciding whether patient notification should take place

Where there is evidence of BBV transmission from infected practitioner to patient, all patients who have undergone exposure prone procedures by that practitioner should be notified, counselled and offered BBV test. In the absence of evidence of transmission, all patients who have undergone highly exposure prone procedure by an infected practitioner should be notified, counselled and offered blood test. Notification of patients who have undergone procedures placed in non-exposure prone procedures is **not** necessary unless information gathered under the other relevant considerations criterion suggests that it is.

Annexure F RIGHTS OF PEOPLE LIVING WITH HIV

a. People Living with HIV -- Human Rights and Universal Access:

Governments have committed themselves to the following:

- To ensure the full enjoyment of all human rights and fundamental freedoms by people living with HIV and members of vulnerable groups;
- Promoting access to HIV education and information;
- Full protection of confidentiality and informed consent;
- Intensifying efforts to ensure a wide range of prevention programmes, including information, education and communication, aimed at reducing risk-taking behaviours and encouraging responsible sexual behaviour, including abstinence and fidelity;
- Expanded access to essential commodities, including male and female condoms and sterile injecting equipment;
- Harm-reduction efforts related to drug use;
- Expanded access to voluntary and confidential counselling and testing;
- Safe blood supplies;
- Early and effective treatment of sexually transmitted infections; and
- Developing strategies to combat stigma and social exclusion connected with the epidemic.

b. Political Declaration on HIV, 2006
How do some of the relevant rights apply?

To empower rights-holders to claim their rights, to protect human dignity and to prevent the transmission of HIV, the following rights should be protected so that people will come forward for HIV information, education and means of protection, and will be supported to avoid risky behaviour:

- **Non-discrimination :** protected against discrimination if seek help or are HIV+
- **Right to privacy :** protected against mandatory testing; HIV status kept confidential
- **Right to liberty and freedom of movement :** protected against imprisonment, segregation, or isolation in a special hospital ward
- **Right to education/information :** access to all HIV prevention education and information and sexual and reproductive health information and education
- **Right to health :** access to all health care prevention services, including for sexually transmitted infections, tuberculosis, voluntary counseling and testing, and to male and female condoms.

c. For those living with HIV or otherwise affected by it, the following rights should be protected:

- Non-discrimination and equality before the law : right not to be mistreated on the basis of health status, i.e. HIV status

- Right to health : right not to be denied health care/treatment on the basis of HIV status
- Right to liberty and security of person : right not to be arrested and imprisoned on the basis of HIV status
- Right to marry and found a family, regardless of HIV status
- Right to education : right not to be thrown out of school on the basis of HIV status
- Right to work : right not to be fired on the basis of HIV status
- Right to social security, assistance and welfare : right not to be denied these benefits on the basis of HIV status
- Right to freedom of movement, regardless of HIV status
- Right to seek and enjoy asylum, regardless of HIV status

Approved: 298th MMC meeting dated 22nd November 2011