

The Dental Council of New Zealand

Code of Practice

Transmissible Major Viral Infections

September 2007

Primarily based on the NZDA Code of Practice: Transmissible Major Viral Infections April 2007

1. Introduction

- 1.1 There are numerous viral infections which are important in dental practice. The majority of these are transient infections, such as mumps, measles, and herpes simplex, which do not normally result in any serious threat to health.
- 1.2 However, certain viral infections have the potential for significant morbidity and mortality. These are:
- Hepatitis B virus (HBV)
 - Hepatitis C virus (HCV)
 - Human Immunodeficiency Virus (HIV)
- 1.3 For the purposes of this *Code of Practice* these viruses are known as the Transmissible Major Viral Infections (TMVIs).
- 1.4 The *Code of Practice: Transmissible Major Viral Infections* sets out:
- information about TMVIs and dentistry
 - professional obligations and recommendations for oral health practitioners.
- 1.5 The *Code of Practice: Transmissible Major Viral Infections* is not intended to regulate procedures for Sudden Acute Respiratory Syndrome (SARS) or Influenza Virus Type H5N1 strain (avian flu), or other similar infections.

2. Relevant Legislation

- 2.1 In addition to professional and ethical obligations, oral health practitioners are bound by relevant legislation. This includes the *Health and Safety in Employment Act 1992*, the *Privacy Act 1993*, the *Health Practitioners Competence Assurance Act 2003* and the *Health and Disability Commissioner Act 1994: Code of Patients Rights*.
- 2.2 The *Health and Safety in Employment Act 1992* requires that an oral health practitioner **must**:
- provide and maintain a safe working environment
 - ensure that employees and other persons who may enter the workplace are not exposed to identifiable hazards
 - develop procedures for dealing with emergencies.
- 2.3 The employer has a responsibility to:
- identify any potential hazards to both staff and patients
 - eliminate, reduce or minimise the effect of any identifiable hazard.
- 2.4 The *Privacy Act 1993* regulates, through the Health Information Privacy Code 1994, the management of the patient's personal information. The Code:

- requires the oral health practitioner to ensure the patient's treatment record remains secure and confidential
- provides rules for situations where the patient's information is to be released.

2.5 The principle purpose of the **Health Practitioners Competence Assurance Act 2003** is to protect the health and safety of members of the public by providing for mechanisms to ensure that health practitioners are competent and fit to practise their profession.

3. Exposure-prone procedures

3.1 Exposure-prone procedures, for the purposes of this *Code of Practice*, are defined as:

Procedures in which there is potential for transmission of TMVI from one individual to another from:

- *direct contact of blood or saliva with mucous membranes and/or open wounds or*
- *penetrating injury from surgical instruments*
- *capping needles and/or*
- *cleaning and sterilizing instruments or equipment.*

4. Methods of eliminating or reducing the risk of infection

4.1 The available medical and scientific literature show that the most effective means of preventing HBV, HCV and HIV transmission in health care settings is by strict adherence to universal precautions and established cross infection control practices including the appropriate use of barrier precautions and the safe handling of sharp instruments. For a complete review of these procedures the reader is referred to the ***DCNZ Code of Practice: Control of Cross Infection in Dental Practice***.

5. Professional obligation to patients

5.1 Persons with HBV, HCV or HIV **must** not be refused care because of their infection or sero-positive status unless other appropriate arrangements are made by the oral health practitioner for the care of that individual.

5.2 Any patient who may have been exposed to blood or other body fluids of another individual (whether infected with a TMVI or not) **must**, as soon as practical, be informed by the oral health practitioner or another designated health professional of the exposure. Post-exposure prophylaxis and appropriate long-term follow-up **must** be offered where appropriate. Patient refusal for testing and serum storage **should** be documented in the treatment record. In the event of sero-conversion, all reasonable efforts **should** be made to confirm that the virus strain transmitted is identical in the exposed patient and the individual source of the infection.

5.3 There is no mandatory requirement for oral health practitioners to inform patients of their HBV, HCV, or HIV status. An oral health practitioner, like any other person, has a right to privacy and confidentiality.

6. Professional obligation to staff and self

6.1 All oral health practitioners who may have been exposed to HBV, HCV or HIV through personal risk behavior, non-occupational exposure to blood products or occupational accidents (see 3.) have a professional and ethical responsibility to seek testing in order to ascertain their own serological status. Staff should be strongly encouraged to follow the same procedures.

6.2 All oral health practitioners who perform exposure-prone procedures have a professional and ethical responsibility to be tested to determine their HBV status and then to be vaccinated against HBV where appropriate (if not immune and not infected), and retested to confirm immunity at appropriate intervals following vaccination. Staff should be strongly encouraged to follow the same procedures.

6.3 Any oral health worker who is free from HBV but who fails to produce protective levels of antibody following vaccination should be:

- referred for specialist advice in relation to alternative methods of vaccine administration
- offered HBV specific immunoglobulin following recognised episodes of exposure to HBV infection.

6.4 An oral health practitioner who knows or suspects that they are HBV, HCV, or HIV infected **must** seek appropriate counsel from their medical practitioner, the Doctors Health Advisory Service or the Dental Council of New Zealand and **must** act properly upon that advice. An HBV, HCV, or HIV infected oral health practitioner **must not** continue in clinical practice merely on the basis of their own individual assessment of that infection.

6.5 An oral health practitioner who knows or suspects that any of their clinical staff is HBV, HCV or HIV infected must seek appropriate counsel from their medical practitioner or the Dental Council and must act properly upon that advice. Infected clinical staff **must** not continue in clinical practice merely on the basis of their own or their employer's assessment of that infection.

6.6 Oral health practitioners who are HBV infected **must** be tested to determine whether they are highly infectious. Practitioners who have active HBV infection **must** not perform exposure-prone procedures until such practice is endorsed by the Dental Council of New Zealand.

6.7 Oral health practitioners who are HCV positive **must** be tested to determine whether they are highly infectious. If the practitioner is HCV-PCR positive the practitioner

must not perform exposure-prone procedures until such practice is endorsed by the Dental Council of New Zealand.

- 6.8 An oral health practitioner who is not highly infectious may, due to the lower risk of transmission, be allowed to continue to perform exposure-prone procedures. Any decision **must** be made by the Dental Council of New Zealand.
- 6.9 As a consequence of Section 45 of the Health Practitioners Competence Assurance Act 2003 any health practitioner who has counseled an HBV, HCV, or HIV infected oral health practitioner to modify that practitioner's practice in order to safeguard patients, and who is aware that the oral health practitioner is not adhering to this advice, must inform the Dental Council of New Zealand. The Council may impose conditions on the practice of that oral health practitioner.
- 6.10 Screening of oral health practitioners for HBV, HCV or HIV infection is not mandatory due to the very low reported risk of transmission from oral health practitioners to patients. However, all oral health practitioners who perform exposure-prone procedures have a professional and ethical responsibility to be aware of their HBV, HCV and HIV status and **should** be vaccinated against Hepatitis B. Vaccination of any at risk staff is also recommended.

7. Procedure following exposure

- 7.1 An exposure that places an oral health worker at risk of TMVI includes percutaneous injury or contact of mucous membrane or non intact skin with blood, tissue or other body fluids that are potentially infectious. There **must** be a system in place including a written protocol for the prompt management of the exposure. The principles for managing an exposure are the same regardless of whether the recipient is a patient, staff member or oral health worker.
- 7.2 The protocol for managing the situation will vary around the country depending on the availability of resources such as medical experts in the field of infectious diseases, access to appropriate medicines and laboratory procedures.
- 7.3 The following basic principles should be addressed in the practice protocol:
- staff training
 - local wound care
 - take blood at baseline from the source (if known) and from the injured party if parties consent
 - seek appropriate expert advice on the need for post exposure immunoglobulin, vaccination, antiviral drugs or other preventive measures
 - fully document the event
 - seek counseling for the exposed individual
 - long term follow up
 - file ACC claim if required.

- 7.4 In the event of sero-conversion, all reasonable attempts **should** be made to confirm that the virus strain transmitted is identical in the exposed person and the source.
- 7.5 Any party involved has the right to refuse serological testing and post-exposure prophylaxis. Any refusal for testing and serum storage **should** be documented.

Appendix A: Important Contact Details

Doctors Health Advisory Service

Postal address: PO Box 812, Wellington 6140

Phone (24 hrs) 0800 471 2654

Fax 04 499 3239

Dental Council of New Zealand

Postal address: PO Box 10-448, Wellington 6143

Phone 04-499 4820

Fax 04-499 1668

Dental Protection Limited (NZ contact)

NZ Contact New Zealand Dental Association

Postal address: PO Box 28 084, Remuera, Auckland 1541

Phone 09 524 2778

Appendix B: TMVI in the Dental Context: A Brief Synopsis

Hepatitis B virus (HBV)

HBV infection is a recognised occupational hazard for health care workers who are exposed to blood or other bodily fluids. Transmission rates in source patients who are positive for HBV surface antigen (HBsAg) are reported to be much higher than for HIV (about 6–30%), particularly if the source is Hepatitis B envelope antigen positive (HBeAg) and the inoculation is a penetrating injury.

Hepatitis C virus (HCV)

Since the introduction of HBV vaccination over the past few decades, HCV has replaced HBV as the most commonly identified cause of occupationally related viral hepatitis among health care workers. When a source patient is positive for HCV antibody, transmission rates are also higher than for HIV, but the risk of transmission is still relatively low (about 3–10%) when compared with HBV.

Human Immunodeficiency Virus (HIV)

Prospective studies of healthcare workers occupationally exposed to HIV have estimated that the average risk of HIV transmission following an exposure to HIV-infected blood is low, in the order of 0.3%. Mucous membrane exposure is associated with an even lower rate of transmission, of around 0.09%.

Although HIV infection has been reported after intact skin exposure to HIV-infected blood, the average risk of HIV transmission following such exposure is exceedingly low, and no health care workers enrolled in prospective studies have sero-converted after an isolated intact skin exposure.

Epidemiological and laboratory studies suggest that the following factors may be associated with an increased risk of HIV transmission:

- a penetrating injury with a hollow bore needle that has been previously placed directly into a blood vessel of an infected patient
- deep inoculating injury to the exposed individual
- a source patient with advanced HIV disease or high viral load. Transmission to a health care worker has been demonstrated however in at least one case from an individual with undetectable plasma viral load.

References

Gunson, R. N. et al; “HBV and HCV infections in health care workers (HCWs): guidelines for prevention of transmission of HBV and HCV from HCW to patients”. *Journal of Clinical Virology*: (2003) 27:3 213-230.

Reitsma, A M. et al; “Infected Physicians and Invasive Procedures: Safe Practice Management” *Clinical infectious Diseases* 2005;40:11 1665-1672.