



Australian Government

Department of Health and Ageing

Guidelines for Managing Blood-Borne Virus Infection in Health Care Workers

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Communicable
Diseases
network
AUSTRALIA

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Disclaimer

These guidelines are provided to assist health care workers in managing the risk of potential exposure to blood-borne viruses in health care settings.

These guidelines capture the knowledge of experienced professionals, build on past research efforts, and provide advice on best practice based upon the best available evidence at the time of completion.

The guidelines are necessarily general and readers should not rely solely on the information contained within these guidelines. The information contained within these guidelines is not intended to be a substitute for advice from other relevant sources including, but not limited to, the advice from a health professional. These guidelines are intended for information purposes only.

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Introduction

The following *Underlying Principles and Processes* arose from a paper prepared for the Communicable Diseases Network of Australia (CDNA) synthesising the key aspects of existing policies from NSW, Queensland, United States Centers for Disease Control and Prevention (CDC), Canada and the United Kingdom. These principles and processes were revised following discussion and debate at a national consensus conference of stakeholders held in October 2002. In 2004 the *Australian Infection Control Guidelines for the Prevention of the Transmission of Infectious Diseases in the Health Care Setting* were published. Further consideration by the CDNA has led to the current document.

This paper should be read with the accompanying issues paper summarising evidence of the risk of transmission and ways of reducing risk and information collected on existing policies and practices.

Section 1 - Assessing and Reducing Risk

1. There is clear evidence that blood borne viruses can be transmitted from an infected health care worker to a patient and it is appropriate to take measures to reduce the risk to patients.
2. Risks of transmission from clinician-to-patient or from patient-to-clinician are dependent on a range of factors including the infectivity of the individual (for example viral load and effect of viral treatments), the clinical context (for example consultation versus exposure prone procedure), operator skill, and experience and the clinical environment.
3. Measures taken to reduce the risk of transmission will require frequent evaluation and alteration as evidence regarding the determinants of risk (for example infectivity, operator skill, type of procedures and long term effects of treatment) accumulates.
4. In health care situations not involving exposure prone procedures the risk of health care worker to patient transmission of blood borne viruses is very low (equivalent to social contact) when standard precautions are followed.
5. Testing regimes cannot ensure that at any point in time health care workers or patients are not potentially infectious, consequently standard precautions must be used in any situation of potential blood borne virus transmission.
6. It is the responsibility of health care workers to be aware of their potential to transmit blood borne viruses and to act to minimise/reduce risk to patients.
7. Health care workers who perform exposure prone procedures should regularly have their blood borne virus status tested.

8. In order to ensure compliance with this recommendation it is essential that appropriate support is available to health care workers who test positive given the potential major costs psychologically, socially and economically to the individual.
9. To encourage compliance with these obligations, health care workers should receive regular reminders of their responsibilities (for example, the inclusion of prompting questions as part of medical, dental and nursing registration renewal processes), and easily accessible, free confidential testing and counselling arrangements.
10. It is the responsibility of the health care system to support the health care worker by creating a work environment that minimises the risk of infection, including appropriate training, and by informing them of relevant policies and legislative requirements.

Section 2 - Screening and Vaccination

11. Overall, the low risk of transmission in most clinical situations, the subsequent cost per additional case prevented and the risks of discrimination do not support any requirement for regular, universal mandatory serological screening for blood borne viruses among health care workers.
12. New students to university health programs, applicants and trainees of health profession training programs, applicants to professional registration bodies, or new health care employees should be strongly encouraged to be screened and where appropriate vaccinated before commencing training. Applicants for courses which involve the performance of exposure prone procedures as an essential part of clinical training should be advised that blood borne virus status has implications for completion of their course and options for practice following completion.
13. For health care workers who do not perform exposure prone procedures, testing is only recommended following occupational risk exposures.
14. Given the availability of a safe and effective vaccine for hepatitis B, all health care workers and student health care workers should be vaccinated and have their status confirmed for their own and their patients' protection.
15. Persons entering training in a health care discipline where they may be required to undertake exposure prone procedures should be offered testing for Human Immunodeficiency Virus (HIV) and hepatitis B and hepatitis C at entry and be medically assessed and counselled on career options where they are found to be positive and potentially infectious.

16. The training period in exposure prone procedures is recognised as a high-risk period for accidental exposure to potentially infectious blood and other body substances. If such training is an essential and necessary part of the career path it is inappropriate for an individual who is positive and potentially infectious to be permitted to continue in such a training program until such time as they are no longer potentially infectious (see Section 4.)

Section 3 - Right to Know and Privacy

17. Health care workers have the same right to access anonymous, confidential testing, counselling, and treatment as the general population.
18. While a case can be made for a right of the patient to know the blood borne virus status of health care workers involved in their care, it is the obligation of the health care services to ensure the safety of all patients such that disclosure of individual status should never be necessary. The right to know needs to be balanced against the risk of transmission, the right to confidentiality of the health care worker and the costs and resource implications to the system of repeated screening and potential loss of skills of workers excluded from the health workforce.
19. Where lookback or other investigations indicate either a breakdown in standard precautions which is likely to result in transmission or actual blood borne virus transmission (see below), then all reasonable efforts should be taken to identify, notify, and provide free of charge appropriate testing, counselling, access to vaccination, post-exposure prophylaxis and treatment to all patients who have been potentially exposed.
20. Because of the clear risk of discrimination to both health care worker and patient, both are entitled to confidentiality as to their serostatus and such information should be limited to those who are providing care to those individuals or managing their immediate risk environment.

Section 4 - Managing the Blood Borne Virus Positive Health Care Worker

21. Where a health care worker is infected with a blood borne virus, he or she must seek formal advice from a medical practitioner with appropriate expertise on the effectiveness of treatments, viral levels and clinical status before performing exposure prone procedures. Failure to do this may constitute unprofessional practice.
22. In general, in accordance with the *Australian Infection Control Guidelines for the Prevention of the Transmission of Infectious Diseases in the Health Care Setting* January 2004 (<http://www.icg.health.gov.au>) health care workers must not perform exposure prone procedures if they are HIV antibody positive, hepatitis B e antigen (HBeAg) positive or hepatitis B virus DNA positive at levels of 10^4 viral equivalents per ml or higher, or hepatitis C virus (HCV) antibody positive and hepatitis C virus RNA positive.
23. The current definition of exposure prone procedures in the *Australian [Infection Control Guidelines for the Prevention of Transmission of Infectious Diseases in the Health Care Setting](http://www.icg.health.gov.au) January 2004* (<http://www.icg.health.gov.au>) should be used to determine the extent to which specific restrictions may be applicable for the individual health care worker in the context of their clinical role, their level of training and competence and their work environment.
24. In general, if a health care worker is not infectious they can perform exposure prone procedures but need to be aware of their status and be guided by a treating practitioner with appropriate expertise on the basis of current effectiveness of their treatments, viral levels and clinical status.

25. The limited available evidence suggests that an HIV positive health care worker on appropriately monitored anti-retroviral therapy and with non-detectable virus levels has a very low, probably negligible risk of transmitting HIV while undertaking exposure prone procedures. Nevertheless, in the absence of evidence regarding the HIV viral load below which transmission is unlikely to occur, HIV antibody positive health care workers must not perform exposure prone procedures.
26. Where a health care worker is hepatitis B surface antigen positive and persistently hepatitis B DNA negative and hepatitis B e antigen negative, they should be considered to be non-infectious for the purposes of exposure prone risk assessment.
27. CDNA's consensus view is that there is epidemiological evidence of a real risk of transmission of hepatitis B during exposure prone procedures from health care workers who are viraemic at levels of 10^4 viral equivalents per ml or higher. A health care worker infected with hepatitis B virus who is viraemic with 10^4 viral equivalents per ml or higher must not perform exposure prone procedures and must seek the advice of a treating practitioner with appropriate expertise.
28. There is currently no evidence for transmission during exposure prone procedures of hepatitis B from infected health care workers whose level of viraemia is less than 10^4 viral equivalents per ml. However evidence of transmission at lower levels may emerge in the future and levels of viraemia may vary from test to test both because of genuine, natural variation in an infected individual and because of variation in the sensitivity of laboratory tests. The view of CDNA is that all health care workers infected with hepatitis B who have detectable viraemia and who perform exposure prone procedures should formally consult a treating practitioner with appropriate expertise. If the infected health care worker proposes to continue performing exposure prone procedures then he or she or their treating physician must inform a jurisdictional expert advisory committee (see below section 5).

29. A health care worker who was previously infectious with hepatitis B who has then tested negative for hepatitis B DNA and hepatitis B infected workers with less than 10^4 genome equivalents must be aware of the need to continue to monitor their status, as a negative or low positive test does not preclude subsequent positive and high positive tests. There is no evidence on which to base guidelines on the frequency of such testing and this should be determined in conjunction with an appropriate expert in light of the specific circumstances of the individual.
30. Hepatitis C infected health care workers who were previously hepatitis C RNA positive who undergo treatment and then have two negative hepatitis C RNA tests no less than six months apart may potentially be considered to be non-infectious for the purposes of any exposure prone risk assessment.
31. All occupational exposures involving a patient who is known to be blood-borne virus positive should be assessed according to local policy on the management of such exposures. Pending serological follow up after occupational exposure to blood borne viruses, a health care worker need not avoid performing exposure prone procedures. This is because the risk of the health care worker having become occupationally infected, combined with the even smaller risk of that infection then being transmitted to a patient during an exposure prone procedure is of such small order as not to merit such a restriction.

Section 5 - Monitoring and Surveillance

32. All states and territories should establish an expert advisory committee which includes expertise in public health, relevant clinical areas and infection control to guide and govern infection control and advise on lookbacks.
33. A confidential advisory service on blood borne viruses should be available to all health care workers.
34. Health professional registration authorities in all states and territories should have policies for the management of registered health care workers infected with blood borne viruses consistent with these *Underlying Principles and Processes* and with the advice of the jurisdictional expert advisory committee. In general such policies should take a cooperative approach with guidelines (rather than enforcement approaches) to encourage health care worker participation.
35. Each jurisdiction should require that, where a registered health care worker is known to be potentially infectious, his or her status and work is reviewed by a medical practitioner with appropriate expertise in blood borne virus infection, including assessment of type of practice being conducted, the types of procedures undertaken and the type of patients under their care. Usual standards of documentation should apply. The treating practitioner should be able to seek independent expert advice from their health professional registration authority to ensure consistency with policies on restrictions on undertaking exposure prone procedures and management of any practitioner considered to be placing the public at risk. The policy of the health care registration authority should also provide guidance on the processes for regular review of status and restrictions.
36. It is recognised that there are health care workers potentially undertaking or participating in providing exposure prone procedures who are not currently subject to any professional registration. All jurisdictions should ensure that such situations are covered appropriately in their public health legislation such

that individuals may be counselled and appropriately advised on care and any restrictions on practice that apply.

37. Where the health professional registration authority becomes aware that a health care worker is in repeated breach of any restrictions, it requires powers to be able to notify employers or other appropriate management authorities in the case of contractors.
38. These principles for managing a health care worker with a blood borne virus assume that the health care worker is otherwise unimpaired. Where physical or psychological impairment is present these should be dealt with under the usual regulatory and occupational health requirements.
39. Implementation of the health professional registration authority policy requires that the employing authorities implement appropriate structures and arrangements to facilitate access to treatment, retraining, and to provide economic and psychological support for the health care worker.
40. All health care facilities require policies to manage occupational exposure incidents. Where an occupational exposure incident occurs which involves a health care worker known or subsequently determined to be infectious for a blood borne virus, then normal contact tracing principles should apply and the patient(s) should be notified and appropriate counselling, testing and treatments undertaken.

Section 6 - Investigation of Incidents

41. Where it is identified that a health care worker not previously known to be potentially infectious has undertaken exposure prone procedures, lookback procedures should not routinely be instituted. Where there is evidence of transmission or of breakdown of standard precautions expert advice should be sought regarding the likelihood that transmission may have occurred.
42. Lookbacks are indicated where there is evidence of transmission.
43. Investigation of the risk of transmission is indicated where case(s) of blood borne viruses are notified in people who have no risk factor other than exposure to an infected health care worker.