

HIV, Hepatitis B and Hepatitis C - Management of Health Care Workers Potentially Exposed

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Functional Sub group Personnel/Workforce - Occupational Health & Safety
Clinical/ Patient Services - Infectious diseases

Summary Specifies requirements regarding management of health care workers potentially exposed to HIV and hepatitis.

Author Branch Health Protection

Branch contact Health Protection NSW

Applies to Area Health Services/Chief Executive Governed Statutory Health Corporation, Board Governed Statutory Health Corporations, Affiliated Health Organisations, Community Health Centres, Dental Schools and Clinics, Divisions of General Practice, Environmental Health Officers of Local Councils, Government Medical Officers, NSW Ambulance Service, Ministry of Health, Private Hospitals and Day Procedure Centres, Private Nursing Homes, Public Health Units, Public Hospitals

Distributed to Public Health System, Community Health Centres, Dental Schools and Clinics, Divisions of General Practice, Environmental Health Officers of Local Councils, Government Medical Officers, Health Associations Unions, Health Professional Associations and Related Organisations, NSW Ambulance Service, Ministry of Health, Public Health Units, Public Hospitals, Private Hospitals and Day Procedure Centres, Private Nursing Homes, Tertiary Education Institutes

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Status Active

Director-General

This Policy Directive may be varied, withdrawn or replaced at any time. Compliance with this directive is **mandatory** for NSW Health and is a condition of subsidy for public health organisations.

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CIRCULAR

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Management of health care workers potentially exposed to HIV, hepatitis B and hepatitis C

This circular supersedes 98/11 *Management of health care workers potentially exposed to HIV, hepatitis B and hepatitis C.*

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In accordance with the provisions incorporated in the Accounts and Audit Determination, the Board of Directors, Chief Executive Officers and their equivalents, within a public health organisation, shall be held responsible for ensuring the observance of Departmental policy (including circulars and procedure manuals) as issued by the Minister and the Director-General of the Department of Health.

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GLOSSARY

anti-HBs	antibody to hepatitis B surface antigen
Employee	Includes all persons permanently or temporarily employed by Health Services.
EPPs	<p>Exposure prone procedures. EPPs are a subset of invasive procedures. EPPs are those procedures where there is potential for contact between the skin (usually finger or thumb) of the HCW and sharp surgical instruments, needles or sharp tissues (splinters/ pieces of bone/tooth) in body cavities or in poorly visualised or confined body sites including the mouth. Procedures which lack these characteristics are unlikely to pose a risk of transmission of blood borne viruses from infected HCW to patient.</p> <p>Provided they are not conducted in poorly visualised or confined body sites, the following procedures are not considered to be exposure prone - oral, vaginal or rectal examinations that do not involve sharp instruments; phlebotomy; administering intramuscular, intradermal or subcutaneous injections; needle biopsies; needle aspirations; lumbar punctures; venous cutdown and angiographic procedures; excision of epidermal or dermal lesions; suturing of superficial skin lacerations; endoscopy; placing and maintaining peripheral and central intravascular lines, nasogastric tubes, rectal tubes and urinary catheters; acupuncture; other procedures that do not involve sharps; or procedures where the use of sharps is superficial, well visualised, and administered to compliant or anaesthetised patients where it is very unlikely that a HCW skin injury would result in exposure of a patient to the HCW's blood or body substances.</p>
HBIG	Hepatitis B immunoglobulin
HBsAg	Hepatitis B surface antigen
HBeAg	Hepatitis B e antigen
HBV	Hepatitis B virus
HBV DNA	Hepatitis B virus deoxyribonucleic acid
HCV	Hepatitis C virus
HCW	Health care worker
Health Service	Public health organisations as defined under section 7 of the Health Services Act 1997 (including Area Health Services, Corrections Health and the Children's Hospital at Westmead) and the Ambulance Service of New South Wales.

HIV	Human immunodeficiency virus
LPHCF	Licensed Private Health Care Facilities are health care facilities licensed under the Nursing Homes Act 1988 and Private Hospitals and Day Procedure Centres Act 1988.
Other personnel	Persons who are not permanently or temporarily employed by Health Services but may be contracted to work or be on clinical placement
PCR	polymerase chain reaction
PHO	Public Health Organisations
window period	The time from exposure to seroconversion when the source may be asymptomatic or experiencing seroconversion illness.

1. INTRODUCTION

HIV, HBV and HCV may be transmitted by significant exposure to blood or other body substances.

Occupational exposure is defined as an incident which occurs during the course of a person's employment and involves contact with blood or other body substances. Such exposures may put the person at risk of acquiring a blood borne infection.

Adherence to standard infection control practices remains the first line of protection for health care workers against occupational exposure to HIV, HBV or HCV. Knowledge regarding treatment of exposure to HIV, HBV and HCV is evolving rapidly so, in addition to following the guidelines included in this circular, the advice of an appropriate medical specialist should always be sought prior to commencement of treatment.

This Circular should be read in conjunction with Circulars 2002/45 *Infection Control Policy*; Circular 2002/97 *Occupational Screening And Vaccination Against Infectious Diseases*; and Circular 1998/100 *H/V Confidentiality: A Guide To Legal Requirements*.

2. RESPONSIBILITIES OF PUBLIC HEALTH ORGANISATIONS

Public Health Organisations (PHOs) must ensure that:

- an efficient local system is established for reporting and managing potential exposures of HCWs to blood and body substances;
- the confidentiality of injured HCWs is maintained in accordance with Circular 98/100 *H/V Confidentiality: A Guide to Legal Requirements*;
- HCWs whose work places them at risk have been offered a course of hepatitis B vaccine as per Circular 2001/91 *Occupational Screening And Vaccination Of Health Care Workers Against Infectious Diseases*;
- all staff are aware of the need to comply with Circular 2002/45 *Infection Control Policy*,
- all staff are aware of whom to contact for advice concerning occupational exposures;
- expert advice is available to all health care workers 24 hours a day and processes are in place to facilitate ready access to appropriate treatment; and
- mechanisms are implemented to educate all HCWs on immediate care of injuries and their rights and responsibilities following an occupational injury/exposure.

Rapid assessment of the HCW is essential to ensure the timely administration of specific prophylaxis when appropriate.

All occupational exposures must be fully documented to meet relevant legal requirements. PHOs must ensure that HCWs are able to obtain the support to which they are entitled, including access to workers compensation if appropriate.

The “NSW Needle Stick Hotline” provides assistance to PHOs in the management of occupational exposure to blood and body substances. The Hotline provides information, support and a referral service. The Hotline is not a substitute **for local Area services**. The Hotline provides a 24 hour service and can be contacted on free call 1800 804 823 within NSW.

It is recommended that licensed private health care facilities have regard to this Circular in the development of policies on management of occupational exposure to blood borne viruses.

3. IMMEDIATE CARE OF THE EXPOSED HEALTH CARE WORKER

After exposure to blood or other body substances the HCW should as soon as possible do the following:

- wash the exposure site with soap and water;
- if eyes are contaminated then rinse them, while they are open, gently but thoroughly with water or normal saline;
- if blood or other body substances get in the mouth, spit them out and then rinse the mouth with water several times;
- if clothing is contaminated remove clothing and shower if necessary;
- inform an appropriate person to ensure that necessary further action is undertaken.

Where water is not available use of a non-water cleanser or antiseptic should replace the use of soap and water for washing cuts or punctures of the skin or intact skin.

4. RISK ASSESSMENT

This includes assessment of the significance of the injury and where possible the status of the source and the health care worker with respect to blood borne pathogens. All this information must be documented appropriately.

4.1 The injury

The significance of the injury should be estimated based on consideration of the following factors:

- the nature and extent of the injury;
- the nature of the item that caused the injury eg. gauge of the needle;
- the nature of the body substance involved; and
- the volume of blood and body substances to which the HCW was exposed (see Table 1).

The significance of an exposure may then be classified as summarised in Table 1.

Table 1: Classification of exposures¹²

<p>Percutaneous exposures to blood</p>	<p><i>Highest risk</i> BOTH exposure to a large volume of blood (eg deep injury with a large diameter hollow needle previously in the source patient's vein or artery, and especially involving injection of patient's blood) AND exposure to blood containing high titre of HIV, HCV, HBV (eg in the case of HIV, blood from a source with acute seroconversion illness or a terminally ill AIDS patient) <i>Increased risk</i> EITHER exposure to a large volume of blood OR exposure to blood with a high titre of HIV, HCV, HBV (eg percutaneous injury with a soiled solid needle). <i>No increased risk</i> NEITHER exposure to a large volume of blood NOR exposure to blood with a high titre of HIV, HCV, HBV</p>
<p>Other significant percutaneous exposures</p>	<p>Percutaneous exposures involving fluids containing visible blood, or other potentially infectious fluids (includes semen, vaginal secretions, cerebrospinal, synovial, pleural, peritoneal, pericardial and amniotic fluids) or tissue.</p>
<p>Significant mucous membrane exposures</p>	<p>Exposures (usually splashes) to eye or mouth involving blood, fluid containing visible blood or other potentially infectious body fluids.</p>
<p>Significant skin exposures</p>	<p>Exposures of non-intact skin, or extensive or prolonged skin contact involving blood, blood-stained fluid or other potentially infectious body fluids.</p>
<p>Other exposures</p>	<p>Percutaneous, mucous membrane or cutaneous exposure to (non-blood stained) urine or saliva.</p>

Only in the case of *percutaneous, significant percutaneous, significant mucous membrane, or significant skin* exposures is further assessment of the HCW required.

In the case of *other* exposures then no further testing or examination is required, apart from the possibility of further counselling. This should be determined according to individual circumstances.

4.2 The source

In the case of *percutaneous, significant percutaneous, significant mucous membrane, or significant skin* exposures every effort should be made to ascertain the HIV, HBV and HCV status of the source.

If the status of the source individual is unknown at the time of the accident, then baseline testing should be undertaken to determine the source's infectious status for HIV, HBV and HCV by testing for HIV antibody, HBsAg and HCV antibody

¹ Adapted from CDC. Update: Provisional Public Health Service Recommendations for Chemoprophylaxis After Occupational Exposure to HIV. *MMWR* 1996; 468-80.

² Adapted from ANCARD. HIV/AIDS Clinical Trials and Treatments Advisory Committee. *Antiretroviral Therapy for HIV Infection: Principles of Use. Standard of Care Guidelines.* October 1997.

respectively.

Testing of the source patient must follow accepted guidelines. Pre and post test counselling must be given and informed consent obtained before testing can proceed. Refer to NSW Health Department Circular 92/20 *Guidelines for Counselling Associated with HIV Antibody Testing*.

4.3 The exposed health care worker

In the case of *percutaneous, significant percutaneous, significant mucous membrane, or significant skin* exposures the HCW should have baseline testing for HIV, HBV and HCV.

Testing of the HCW must follow accepted guidelines. Pre and post test counselling must be given and informed consent obtained before testing can proceed. Refer to NSW Health Department Circular 92/20 *Guidelines for Counselling Associated with H/V Antibody Testing*.

The affected HCW should be offered the opportunity of ascertaining their HIV, HBV and HCV status with appropriate counselling and consent after any exposure. The opportunity should be taken to follow up other occupational and staff health requirements such as vaccination status.

5 TREATMENT OF THE EXPOSED HEALTH CARE WORKER

5.1 Source negative for HIV, HBV and HCV

Apart from counselling and collecting blood from the HCW for baseline serological studies, no **further** action is required in relation to HIV and HCV. In relation to HBV, management should be as **follows**:

- if the health care worker is already fully immunised and/or immune, then no further treatment is required;
- if the exposed HCW is not immunised for HBV, then a course of vaccination should be offered, and immunity should be checked 3 months after completion of the course;
- if the exposed HCW is partially immunised, then the immunisation course should be continued and immunity should be checked 3 months after completion of the course; and

The blood which is collected from the HCW may be stored for future testing if required.

5.2 Source of unknown infectious status or source unable to be tested

If after every effort has been made to ascertain the HIV, HBV and HCV status of the source the status is uncertain then the relative risk of the source being positive for HIV, HBV or HCV must be inferred when giving recommendations concerning prophylactic measures. If concern exists that there is a high risk of the source being infected with HIV, HBV or HCV, then the HCW should be managed as set out in sections 5.3.2, 5.4.2 and 5.5.2 for infected sources.

If the source refuses to be tested for HIV, HBV, HCV then the relative risk of the source being infected must be assessed from epidemiological and historical information and the HCW treated as appropriate to the level of risk.

5.3.1 Source likely to be in the window period

The source should be followed for up to 3 months to determine whether they develop HIV antibodies. The exposed HCW should have baseline testing for HIV antibody, be retested at 6 weeks and 3 months, and be tested for other blood borne viruses (see sections 5.4 and 5.5).

If a delay in obtaining test results is anticipated, prophylaxis should be commenced where indicated and reassessed when test results become available.

Prophylaxis should only be offered on advice from a clinician experienced in the administration of drugs for the treatment of HIV.

5.3.2 Source positive or likely to be positive for HIV

In a source known or likely to be HIV antibody positive, baseline HIV, HBsAg and HCV antibody testing of the HCW should be undertaken with appropriate pre and post test counselling and consent.

Recommendation for initiation of HIV prophylaxis depends on the type of exposure. Information concerning the source's stage of HIV infection, viral load and history of HIV therapy should be ascertained so that the most appropriate therapy and counselling can be offered.

For percutaneous exposure to HIV-infected blood the HCW should be informed that the average risk of HIV transmission is approximately 0.3%.³ During this period the HCW should be advised:

- not to donate plasma, blood, body tissue, breast milk or sperm;
- to protect sexual partners by adopting safe sexual practices (eg use of condoms);
- to seek expert medical advice regarding pregnancy and/or breastfeeding;
- to seek expert clinical advice on the need to modify work practices involving exposure prone procedures during the window period (see NSW Health Circular 99/88 *Health Care Workers Infected with HIV, Hepatitis B or Hepatitis C*). This will usually only be recommended in the case of *highest risk percutaneous* exposures (as defined in Table 1); and
- to seek expert clinical advice and to modify work practices if involved in the performance of exposure prone procedures if he/she develops clinical or serological evidence of HIV infection. Medical practitioners should be advised to familiarise themselves with the policy of the NSW Medical Board regarding infection with blood borne viruses and their responsibilities.

³ Gerberding J.L, Prophylaxis for occupational exposure to HIV. *Annals of Internal Medicine*. 2003.125: 6:497:501

Where prophylaxis is indicated it must be commenced as soon as possible following exposure, preferably within 1-2 hours but even up to 36 hours post exposure it is still considered worthwhile (see Appendix 1). The use of HIV prophylaxis should be recommended or offered as set out in Appendix 1. Notwithstanding the general guidelines in Appendix 1, advice regarding individual cases should be sought as soon as possible from a clinician experienced in the administration of drugs for the treatment of HIV. Appendix 2 includes contact details for some health care facilities with clinicians experienced in the administration of antiretrovirals for the treatment of HIV.

Counselling of the HCW should include information on the:

- risk of HIV infection following the occupational exposure the;
- reports of seroconversion following HIV prophylaxis;
- side effects and adverse reactions associated with HIV prophylaxis;
- use in pregnancy/breastfeeding of HIV prophylaxis (if appropriate); and
- current status of knowledge regarding the efficacy of chemoprophylaxis following occupational exposure to HIV.

The decision to accept or decline treatment is that of the HCW, and should be documented. Should the exposed person decide to commence PEP, clinicians may elect to provide a 4-day PEP starter pack, and request that the patient return for a prescription and further discussion within 2-3 days. This will provide a further opportunity to assess the appropriateness of PEP and the initial PEP regimen prescribed, including the number and combination of drugs prescribed.

This follow up appointment should also be used to address any ongoing anxiety the exposed person may be experiencing, conduct further counselling and provide advice on managing side effects as appropriate.

Areas may wish to consider strategies such as dispensing only one week's supply of drugs at a time to ensure that appropriate follow up and counselling is provided and to reduce wastage.

In addition to baseline testing of the exposed HCW for HIV antibody, the exposed HCW should be retested at 6 weeks and 3 months, and be tested for other blood borne viruses (see sections 5.4 and 5.5). If antiviral therapy is given, testing for HIV antibody should be continued up to and including a 6 month follow-up following the exposure, as therapy may delay conversion to seropositive status.

5.4 HBV

Circular 2002/97 *Occupational Screening and Vaccination Against Infectious Diseases* requires all employees and other personnel to be offered hepatitis B vaccination and to provide documentation regarding post-vaccination serology demonstrating adequate anti-HBs antibodies (>10 mIU/mL) or serological evidence of past infection. If post-vaccination serology does not demonstrate adequate anti-HBs antibodies, employees and other personnel should be offered serological screening for hepatitis B surface antigen carriage. Those who are hepatitis B surface antigen negative should be offered a double dose of vaccine or a further course of 3 doses at monthly intervals with testing four weeks after each additional dose.

Persistent non-responders must be advised that they are not immune to hepatitis B infection and also advised of post-exposure precautions as set out below.

Employees and other personnel who perform EPPs as part of their employment must provide documented evidence of their hepatitis B immune status, otherwise they are not permitted to perform those procedures. Circular 2002/97 sets out procedures for dealing with non-immune employees and other personnel who perform EPPs.

The provisions set out below relate only to non-immune employees and other personnel.

5.4.1 Source likely to be in the window period

The source should be followed for up to 3 months to determine whether they develop HBsAg. The exposed HCW should have baseline testing for HBsAg as well as testing for other blood borne pathogens (see sections 5.3 and 5.5). The HCW who is exposed to blood from a source which is likely to be positive or in the window period should be treated as for a positive source (see Table 2).

5.4.2 Source positive or likely to be positive for HBV

HIV, HCV and HBV antibody testing of the exposed HCW should be undertaken with appropriate pre and post test counselling and consent. If a source is known or likely to be HBsAg positive, then HBeAg and HBV DNA testing should be performed to estimate the risk of transmission. The HCW should be informed of the risk of transmission following needlestick injury (1-6% for antigen negative blood to 22-40% for e antigen positive blood⁴ and/or HBV DNA positivity).

HBV prophylaxis should be offered to non-immune individuals in accordance with the recommendations of the current edition of the NHMRC document *The Australian Immunisation Handbook*. The recommendations set out in Table 2 are an excerpt from the 7th edition of the Handbook.

Table 2 Management of non-immune HCWs where the source is positive or likely to be positive for HbsAg

TYPE OF EXPOSURE	HEPATITIS B IMMUNOGLOBULIN	VACCINE
Percutaneous	Single dose of 400IU by IM injection within 72 hours of exposure	1ml recombinant antigen by intramuscular injection within 7 days of exposure, repeated at 1-2 months and again 5 months after the 2nd dose

During the 6 month period following exposure the HCW should be advised:

- not to donate plasma, blood, body tissue, breast milk or sperm;
- to protect sexual partners by adopting safe sexual practices (eg use of condoms);

⁴ Sepkowitz KA, Occupationally acquired infections in health care workers. *Annals Internal Medicine*. 1996;125:917-928.

- to seek expert medical advice regarding pregnancy and/or breastfeeding;
- to seek expert clinical advice regarding the need to modify work practices involving exposure prone procedures. This will usually only be recommended in the case of highest risk percutaneous exposures (as defined in Table 1); and
- to seek expert clinical advice and to modify work practices if involved in the performance of exposure prone procedures if he/she develops clinical or serological evidence of HBV.

If there is evidence of acute hepatitis, then the HCW should be referred to a specialist experienced in the management of hepatitis. Medical practitioners and HCW involved in invasive procedures should be advised to familiarise themselves with the policy of the NSW Medical Board regarding infection with blood borne viruses.

Counselling of the HCW should include information on:

- the risk of HBV infection following occupational exposure;
- the side effects and adverse reactions associated with HBV vaccination and HBIG; and
- the use in pregnancy/breastfeeding of HBV vaccination and HBIG.

The decision to accept or decline treatment is that of the HCW, and should be documented.

The exposed HCW should have baseline testing for HBsAg, be retested at 6 weeks, 3 months and

6 months; and be tested for other blood borne viruses (see sections 5.3 and 5.5).

5.5 HCV

5.5.1 Source likely to be in the window period

The HCW who is exposed to blood from a source who is likely to be positive or in the window period for HCV should be treated as for a positive source (see section 5.5.2).

The source should be followed for up to 6 months to determine whether they develop HCV antibodies. The exposed HCW should have baseline testing for HCV antibodies, as well as testing for other blood borne viruses (see sections 5.3 and 5.4).

5.5.2 Source positive or likely to be positive for HCV

Many patients infected with hepatitis C know whether they carry virus by PCR testing. If the source is HCV antibody positive or likely to be, then the risk of transmission from a deep needle stick injury with a hollow needle is approximately 10% and if the source is PCR negative, the risk is approximately 1.8%⁵.

At present there is no prophylaxis proven to be effective following exposure to HCV.

⁵ CDC. Recommendations for Follow-Up of Health-Care Workers After Occupational Exposure to Hepatitis C Virus. MMWR 1997;46:603-606.

The aim of follow up is to detect acute hepatitis C so that appropriate management can be instituted.

The HCW should be informed of the risk of transmission to secondary contacts, especially during the first 6 months following the incident. During this period the HCW should be advised:

- not to donate plasma, blood, body tissue, breast milk or sperm;
- to consider safe sex (eg use of condoms) during menstruation or if there is genital ulceration, but there is little evidence that HCV is sexually transmitted to a significant degree;
- to seek expert medical advice regarding pregnancy and/or breastfeeding;
- to seek expert clinical advice regarding the need to modify work practices involving exposure prone procedures. This will usually only be recommended in the case of *highest risk percutaneous* exposures (as defined in Table 1); and
- to seek expert clinical advice and to modify work practices if involved in the performance of exposure prone procedures if he/she develops clinical or serological evidence of HCV.

If there is evidence of acute hepatitis, then the HCW should be referred to a specialist experienced in the management of hepatitis (see Appendix 2 for contact details of some hospitals with clinicians experienced in administration of drugs for treatment of HCV).

Counselling of the HCW should include the risk of HCV infection following the occupational exposure.

The exposed HCW should have baseline testing for HCV antibody, be retested at 6 weeks, and 6 months; and be tested for other blood borne viruses (see sections 5.3 and 5.4). HCV PCR testing should also be offered at 6 weeks. If the HCV PCR is negative at that time, the HCW can be advised that the risk of transmission is negligible, but that an antibody test at 6 months post exposure should still be undertaken to confirm that transmission has not occurred.

In the case of HCWs who perform exposure prone procedures it is recommended that an expert in the clinical management of HCV be consulted regarding the frequency with which HCV PCR and liver function tests should be offered during the window period.

In the event that a HCW is found to be HCV PCR positive, the test should be repeated immediately on a new blood sample. If there is clinical doubt regarding acute seroconversion illness or HCV PCR status, then a blood sample should be collected and referred as a matter of urgency to a hub laboratory (other than the laboratory at which the original test was performed) experienced in the performance of HCV PCR testing. Medical practitioners should be advised to familiarise themselves with the policy of the NSW Medical Board regarding infection with blood borne viruses.

Recommendations for PEP after exposure to HIV¹

Type of Exposure [#]	Source material	Antiretroviral Prophylaxis [^]	Antiretroviral regimen ⁺
Percutaneous	Blood Highest risk [#] Increased risk [#] No increased risk [#]	Recommend Recommend Consider	2 nucleosides 2 nucleosides 2 nucleosides
Other significant percutaneous	Fluids containing visible blood or other potentially infectious fluid or tissue	Consider	2 nucleosides
Significant mucous membrane	Blood Fluid containing visible blood, other potentially infectious fluid ^{^^}	Recommend Consider	2 nucleosides 2 nucleosides
Significant skin^{^^^}	Blood Fluid containing visible blood, other potentially infectious fluid ^{^^} , or tissue	Consider Consider	2 nucleosides 2 nucleosides
Other	Any exposure to non-blood-stained urine and saliva	Not offer	

[#] See Table 1 for classification of exposures

[^] **Recommend:** PEP should be recommended to the exposed person with counselling.

Consider PEP is not routinely recommended, but may be considered after risk assessment.

Not offer PEP should not be offered as there are no documented HIV infections following this type of exposure

⁺ Regimens should be prescribed consistent with the above for 4 weeks. The treatment history of HIV positive sources should be considered when selecting a treatment regimen for the exposed person. Where the source is known to be HIV positive but the exposure does not satisfy the criteria for considering a three drug regimen the exposed person should be prescribed a regimen consisting of two drugs only. However, in this setting, the choice of dual therapy should be based upon: the available current drug treatment; the drug history of the source; and drug resistance test results. For full prescribing information, including current best practice, advice should be sought from a medical practitioner experienced in HIV treatment.

^{^^} Includes semen; vaginal secretions; cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids.

^{^^^} This is considered to be a lower risk exposure. There have only been five documented cases where there was evidence that this may have been a route of transmission. PEP should only be considered for skin exposures that involve a large volume of fluid AND a significant area exposed (eg extensive dermatitis) AND occur over a prolonged period AND involve a source known to be HIV positive.

Note: Nefirapine should not be used due to liver toxicity.

CONSIDERATION OF 3 DRUG REGIMENS

Three drugs must only be used in PEP regimens in very limited circumstances. The addition of a third drug is warranted in the following situations:

If the source is known to be HIV positive

AND

If a high risk exposure has occurred (see Table One for classification of risk)

AND

1. If all that is known about the source individual is that s/he has advanced HIV disease

OR

2. If the source individual is known to have recently had an HIV plasma load greater than 10,000 copies/ml bDNA (>20,000 copies/ml RT-PCR)

OR

3. If it is known, as a result of HIV antiretroviral drug resistance testing, that the source individual has evidence of drug resistance involving primary mutations to nucleosides drugs.

Examples of three drug regimens or triple therapy would include the following combinations:

- Two nucleoside/tide reverse transcriptase inhibitors (NRTIs) and a protease inhibitor
- One NRTI, one non-nucleoside reverse transcriptase inhibitor (NNRTI) and one protease inhibitor
- Two NRTIs and an NNRTI(23)
- Three nucleosides/neucleotide

Appendix 2

Health care facilities with clinicians experienced in prescribing drugs for treatment of HIV and HCV

Facility	Phone number
Concord Repatriation General Hospital, Concord	(02) 9736 7911
John Hunter Hospital, Newcastle	(02) 4921 3000
Liverpool Hospital, Liverpool	(02) 9828 3000
New Children's Hospital, Westmead	(02) 9845 0000
Prince of Wales Hospital, Randwick campus Albion Street Centre campus	(02) 9382 2222 (02) 9332 1090
Royal North Shore Hospital, St Leonards	(02) 9926 7111
Royal Prince Alfred Hospital, Camperdown	(02) 9515 6111
St George Hospital, Kogarah	(02) 9350 1111
St Vincent's Hospital, Darlinghurst	(02) 9339 1111
Sydney Children's Hospital, Randwick	(02) 9382 1111
Sydney Hospital, Sydney	(02) 9382 7111
Westmead Hospital, Westmead	(02) 9845 5555
Port Kembla Hospital (HCV only)	(02) 4223 8000
Albion Street Centre	(02) 9382 9600

NSW Needlestick Hotline	1800 804 823
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- 1 ANCAHRD. Guidelines for the Management and Post Exposure Prophylaxis of Individuals Who Sustain Nonoccupational Exposure to HIV. Bulletin No. 28 July 2001.