NEEDLESTICK INJURY AND BLOOD/BODY SUBSTANCE EXPOSURE

POLICY

The practice recognises that blood and body substances are potential sources of infection regardless of diagnosis or perceived risk. When exposure/injury occurs the following guidelines are to be followed.

Types of exposure/injury

- injury from a needle or sharp that has been in contact with blood or other body substance
- blood or body substance in eyes/nose/mouth
- blood or body substance on non-intact skin

1. **Clean/decontaminate**
    - skin by washing with soap and water
    - mouth, nose, eyes by rinsing well with water or saline

2. **Reporting the incident**
    - Report to a practice principal or, if not available, another medical practitioner as soon as practicable after the incident.
    - Inform the medical practitioner of the source patient's name, if known
    - Document on the Incident Report Form (in the Photocopy Book)
        - what you were doing
        - how the injury happened
        - the nature and extent of the injury
        - exactly what you were injured with (specify needle gauge)
        - the nature of the substance involved
        - how much source patient blood/body fluid was on the sharp or splashed on you and what personal protective equipment you were using, if any
        - name of the source patient, if known
    - If injured whilst cleaning instruments and the source patient is not known, retain the instrument (securely wrapped) in order to facilitate tracing the source patient.

3. Incident occurring during a procedure

- Document whether or not, after the injury, any of your blood went into or on the patient or onto instruments that were in use.
- Medical practitioners/nurses have a duty of care to patients exposed to their blood during a procedure.

4. Classification of Exposures

Percutaneous exposure to blood

High risk

- BOTH exposure to a large volume of blood (eg deep injury with a large diameter hollow needle)
- AND exposure to blood containing a high titre of HIV, hepatitis B or hepatitis C

Low increased risk

- NEITHER exposure to a large volume of blood NOR exposure to blood with a high titre
- of HIV, HBV, HCV

Mucous membrane exposure

- Exposure to eyes or mouth involving blood or other potentially infectious fluids

Significant skin exposure

- Exposures of non-infectious skin involving blood, fluid containing visible blood or potentially infectious fluids

Other exposures

- Percutaneous, mucous membrane or cutaneous exposure to non-blood stained urine or saliva

5. Contacting the Source Patient

- The source patient should be contacted personally by a practice principal to arrange a consultation
- The consultation should be arranged as soon as possible
- If the injury is high risk or the source patient has high risk activities, urgent contact with an infectious diseases specialist at a tertiary hospital is required

6. Consultation with the Source Patient

- This should be conducted by a practice principal
- The principal should explain why it is necessary to perform the tests, including:
    - The same protocol used for every injury/exposure
    - The patient has a duty of care to the injured worker
    - The patient's confidentiality is maintained
    - All persons involved in incident are required to be tested
- The principal should obtain **informed written consent** from the source patient for testing for HBV, HCV and HIV
- The blood sample should be taken and processed as 'urgent'.
- The principal should ascertain whether the patient has ever been informed that he/she has HIV, HBV or HCV.
- The practice principal should ascertain the at-risk activities of the source patient in the last 6 months, including:
    - unprotected sexual intercourse
    - sharing needles, or tattoos, or body piercing
    - sharing razor blades or toothbrushes
    - another person's blood on mucous membranes (eyes, mouth or nose)
    - another person's blood on their non-intact skin (cuts, abrasions, dermatitis, eczema, acne, tinea)
    - transfusion prior to February 1990
- The patient should be informed a blood test may not show evidence of HIV, HBV or HCV for 3-6 months after at-risk activity.

7. Consultation with the exposed worker

- The medical practitioner shall obtain **informed written consent** from the worker for baseline HIV, HBV and HCV testing to ascertain a previously acquired infection
- Blood samples should be taken and processed as 'urgent'
- The medical practitioner shall ensure the worker's confidentiality
- The worker should be counselled on safe sex practices and given the National Needlestick Hotline 24 hour number 1800 804 823

8. Source Patient is unknown

- Reasonable efforts should be made to identify source persons or syringes.
- If the source remains unknown, appropriate follow-up should be determined on an individual basis depending on:

- type of exposure
- likelihood of source being positive for a blood pathogen
- prevalence of HIV, HBV and HCV in the community from which the instrument or needle comes.

- Appropriate follow-up should also determine the risk of tetanus
- Depending on the circumstances of the exposure, the following may need to be considered:
  - tetanus immunoglobulin
  - a course of adult diphtheria and tetanus

9. Source patient is HIV positive, HBV positive or HCV positive

- Affected staff member should be referred to an infectious diseases specialist or to the emergency department of the nearest public hospital as soon as possible for infectious disease assessment and AZT provision.

10. Affected staff member is unable/unwilling to be referred to an infectious diseases specialist

- If the affected staff member is unable/unwilling to be referred to an infectious diseases specialist or the emergency department of the nearest public hospital, the following treatment may be commenced. The treating GP should contact an infectious disease specialist to ascertain whether this treatment is still current.

11. Source patient is HIV positive

- Post-exposure prophylaxis may be offered to the affected staff member
- Treatment should begin as soon as possible after exposure (preferably within two hours).
- The suggested dose of zidovudine is 200mg orally five times per day, or 250mg four times a day for six weeks.
- Doctors should emphasise the importance of strict compliance with the treatment regimen
- Potential side effects and the appropriate course of action if these are experienced should be explained.
- Supplies of AZT may be obtained from pharmacies of hospitals with major Infectious Disease Units.
- The affected staff member should be followed up to ascertain whether any febrile illness occurs within three months of exposure. Such illness, particularly one characterised by fever, rash or lymphadenopathy, may indicate primary infection with HIV.
- During the period of surveillance (three months), the affected staff member should not
  - donate plasma or blood, body tissue, milk or sperm until approved by the evaluating physician:

- protect sexual partners from contact with blood, semen or vaginal fluids by using condoms
- avoid pregnancy until HIV status is known:
- consider work practices for health care workers

12. Source Patient is HBV Positive (HBSAG Positive)

- The approach to investigation is modified according to whether or not the affected person has received a course of hepatitis B vaccine.
- If the affected person has been vaccinated, blood is taken for estimation of hepatitis B surface antibody (Anti-HBs) to confirm that vaccine immunity is being maintained. Antibody titres may fall below protective levels some years after vaccination (non-protective levels less than 10IU/l).
- If the affected person has not been previously vaccinated for hepatitis B, blood is taken for estimation for hepatitis B core antibody (Anti-HBc), Anti-HBs or other such test such as HbsAg that is available in your local laboratory to determine previous infection.
- These tests will indicate whether the affected person has previously been infected with hepatitis B. If the affected person has been previously infected, no further action is required.
- Where the affected person has not been infected with hepatitis B and is negative for Anti-HBs or has levels that are non-protective (less than 10IU/l), hepatitis B immunoglobulin(HBIG) should be given within 48hours of injury when:
  - the source individual; is HbsAg positive
  - the source individual is unknown
  - the results of tests on the source individual and affected person are unavailable within 48hours.
- Persons eligible for HBIG should commence a vaccination course at the same time. Three vaccinations at zero, one and six months are required.
- When the affected person is immune (Anti-HBs positive), consider checking antibody levels or providing booster vaccination if the previous course was completed more than five years ago.

13. Source Patient is Anti-HCV Positive

- The risks and some mechanisms of HCV transmission in health care settings are not firmly established.
- At present, apart from thorough washing (as for HIV and HBV) at the time of injury, there is no known treatment that can alter the likelihood of transmission.
- The reasons for following up affected persons are to ascertain whether HCV infection occurs and to provide treatment and support.
- The affected person should be tested for Anti-HCV at zero, three and six months.

- Follow-up should be undertaken by a specialist with expertise in the treatment of HCV infection.

(www.sahealth.sa.gov.au/infectiousdiseasecontrol)