PAEDIATRIC ACUTE CARE GUIDELINE	
Needlestick Injury – from the community	
Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

This document should be read in conjunction with this DISCLAIMER
http://kidshealthwa.com/about/disclaimer/

Needlestick Injury – from the community

Background

- The risk of transmission of Blood Borne Viruses (BBV) to a needlestick recipient in a community setting is very low
- There are no reported cases of a member of the public becoming infected by HIV, Hepatitis B or Hepatitis C following accidental injury from discarded injecting needles in the community setting
- Follow up is essential
- Please note that the laboratory is unable to test used syringes for evidence of infective virus under **any** circumstances

General

Risk Associated with Exposure:

Blood Borne Virus	Estimated incidence in WA IV drug users*	Risk of transmission with a needlestick#	Calculated maximal risk of transmission✩
HIV	1.1 – 1.6%	0.3%	0 – 0.0048%
Hepatitis B	1.8%	30%	0 – 0.0054%
Hepatitis C	55 – 58%	3%	0 – 1.74%

* Which is the most likely source of discarded needles in the community
# Figures based on occupational exposure

✩ Calculated from column 1 and 2. Maximal risk is likely overestimated.

History

- Assess risk: presence of blood in the syringe, depth of injury, site of needlestick injury
- Assess patient's immunisation status (Tetanus, Hepatitis B)

Investigations

- Take baseline serology (Hepatitis B, Hepatitis C and HIV)
    - This requires informed verbal consent from parent
    - Make the test for hepatitis B surface antibody (HepB-sAb) as urgent (will determine the need for Hep B immunoglobulin), results will be available within 24hrs (except if done over the weekend – will take longer)
- If the identity of the needle user is known, then the source should also have their blood taken for serology (Hepatitis B, Hepatitis C and HIV), after obtaining informed consent

Management

- There is always an on call Infectious Disease Specialist available for advice
- If the source patient is known to have a BBV, the on call Infectious Disease Specialist should always be contacted

Initial management

- First Aid: if not already done, clean the exposure site with soapy water

Tetanus Prophylaxis:

- If the child has not had any vaccinations, not received a full tetanus vaccine course or has not received a booster within the last 5 years:
    - Give DTP or ADT
- If the child is not fully immunised against tetanus, or doubt about vaccination status then also give tetanus immunoglobulin. Access via Blood bank on ext 8497.

Hepatitis B Vaccination:

- If not vaccinated for Hepatitis B:
    - Give a single dose Hepatitis B vaccination in ED
    - For the ongoing accelerated Hepatitis B vaccinations (at 7 days and 21 days), arrange via the GP

Hepatitis B Immunoglobulin:

- Hepatitis B immunoglobulin should be given within 72 hours, once the results are known

(if the patient has HepB-sAb < 10 IU)
- Access via Blood bank on ext 8497

Hepatitis C:

- There is no available vaccine or post exposure prophylaxis currently recommended

Medications

HIV Prophylaxis:

- No anti-retroviral prophylaxis should be routinely prescribed unless the source of the needlestick is known to be HIV positive
- The risk of HIV transmission from community needlesticks is extremely small (presently no published cases), and anti-retrovirals do have significant side effects

Referrals and follow-up

- Needlestick Discharge Information Sheet: Standard letter for children with community acquired needlstick injury
- Return to PMH ED within 24 hours for the results of the Hepatitis serology
- If Hep B Ab < 10 IU/mL then give Hepatitis B Immunoglobulin
- Arrange accelerated Hepatitis B vaccination course via the GP
- GP follow up 1 week after the initial serology to communicate the results of HIV, Hepatitis C serology
- Review at PMH Infectious Diseases Outpatient Clinic at 2 and 6 months. Complete the outpatient clinic referral form.
- Follow up serology (blood tests) to be done at PMH laboratory approximately 2 weeks prior to the OPC appointments. Ensure the patient has completed pathology request forms and some take home EMLA for both tests.

Health information (for carers)

Advice to reduce the risk of transmission to close contacts until final serology at 6 months:

- If relevant (e.g. adolescent) advise against unprotected sex/needle sharing/sharing razors
- Do not share toothbrushes

Tags

accidental, antiretroviral, azt, b, blood, body fluid, c, exposure, fingerprick, hepatitis, HIV, injury, innoculation, ivdu, membranes, mucous, needlestick, splash

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File Path:			
Document Owner:	Dr Meredith Borland HoD, PMH Emergency Department		
Reviewer / Team:	Kids Health WA Guidelines Team		
Date First Issued:	26 March, 2014	Version:	
Last Reviewed:	17 November, 2017	Review Date:	17 November, 2020
Approved by:	Dr Meredith Borland	Date:	17 November, 2017
Endorsed by:	Medical Advisory Committee	Date:	17 November, 2017
Standards Applicable:	NSQHS Standards: 		
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