MANAGEMENT OF NEEDLESTICK INJURIES AND EXPOSURES TO BLOOD AND HIGH-RISK BODY FLUIDS

NHS Greater Glasgow and Clyde

Initial Action Plan

1. IMMEDIATELY FOLLOWING EXPOSURE

Apply First Aid
Encourage local bleeding of accidental puncture wounds by gently squeezing.
DO NOT SUCK THE AREA

Wash the affected area with soap and warm water.
DO NOT SCRUB THE AREA

Treat mucosal surfaces such as mouth or conjunctiva by rinsing with warm water or saline. Water used for rinsing the mouth must not be swallowed.
DO NOT USE BLEACH ON THE INJURY

2. ASSESS THE INJURY

Establish whether a **significant injury** has occurred[‡]

In order for an injury to be considered significant, **both** the type of injury incurred and the body fluid involved must be high-risk. See boxes 1 and 2 below for definitions of high-risk injuries and body fluids.

[‡] if the injury involves contact with HIV infected blood discuss with infections disease physician on call.

3. HAS THIS BEEN A SIGNIFICANT INJURY?

NO ↓

Health Care Worker

- The risk of infection with a bloodborne virus is extremely small.
- Inform Occupational Health Department at earliest opportunity.
- Complete Datix form
- With your supervisor, reflect on the cause of the injury and take steps to ensure the future risk of such incidents is reduced.

Member of the public
Re-assure that the risk of infection with a bloodborne virus is extremely small, and that no further action is required.

If further reassurance is needed, advise to contact GP who can arrange further support if required. Support can be accessed through the Sandyford Services.
If the incident has occurred during the course of the patient's work, advise him/her to inform their Occupational Health Department (where applicable) at the earliest opportunity.

YES ↓

Health Care Worker
Report injury to supervisor

Inform Occupational Health Department immediately or, if out of hours, go to A&E as soon as possible, ideally within one hour of the incident occurring.

[†]Supervisors should refer to section 1 of the guideline Management of occupational exposures to bloodborne viruses* for guidance on roles and responsibilities.

Member of the public
Refer patient to the A&E as soon as possible, ideally within one hour of the incident occurring.

Those treating the injured person should follow the guideline Management of occupational and non-occupational exposures to bloodborne viruses*

Box 1: Injury type

High-Risk Injury	Low-Risk Injury
Percutaneous exposure e.g. needlestick / other sharps injury Exposure on broken skin Mucous membrane exposure (e.g. eye) Human Bite	Splash on intact skin – there is no known risk of BBV transmission from exposures to intact skin.

Box 2: Body fluid

High-Risk Body Fluid	Low-Risk Body Fluid (unless blood-stained)
Blood Blood-stained low risk fluid Semen Vaginal Secretions CSF Pericardial fluid Peritoneal fluid Pleural fluid Saliva associated with dentistry Amniotic fluid Breast milk Synovial fluid Unfixed tissues or organs	Urine Vomit Saliva Faeces

*The full guideline and supporting documentation can be accessed at www.nhsggc.org.uk/phpu

MANAGEMENT OF NEEDLESTICK INJURIES AND EXPOSURES TO BLOOD AND HIGH-RISK BODY FLUIDS
Poster for use in Accident and Emergency

NHS Greater Glasgow and Clyde

Must be used in conjunction with the NHSGGC guideline: *Management of occupational and non-occupational exposures to bloodborne viruses*

Ensure first aid has been undertaken

See section 1 of the guideline

Assess the injury

Establish whether a **significant injury** has occurred.

In order for an injury to be considered significant, **both** the type of injury **and** the body fluid involved must be high-risk.

See boxes 1 and 2 below for definitions of high-risk injuries and body fluids.

Note: For advice on how to manage human bites, see section 1 of the guideline

Box 1: Injury type

High-Risk Injury	Low-Risk Injury
Percutaneous exposure e.g. needlestick / other sharps injury Exposure on broken skin Mucous membrane exposure (e.g. eye) Human bites that break the skin	Splash on intact skin – there is no known risk of BBV transmission from exposures to intact skin.

Box 2: Body fluid

High-Risk Body Fluid	Low-Risk Body Fluid (unless blood-stained)
Blood Blood-stained low risk fluid Semen Vaginal Secretions CSF Pericardial fluid Peritoneal fluid Pleural fluid Saliva associated with dentistry Amniotic fluid Breast milk Synovial fluid Unfixed tissues or organs	Urine Vomit Saliva Faeces

Source patient risk assessment

The nurse in charge of the source patient is responsible for the initial risk assessment and management of the source patient but can delegate BBV testing to a junior doctor or other as appropriate. The source patient BBV risk assessment and, if consent given, BBV testing, should be undertaken immediately. Undertake BBV testing on all consenting source patients irrespective of the result of the risk assessment. Follow the NHSGGC Management of Occupational and Non-occupational Exposures to Bloodborne Viruses including ~Needlestick Injuries & Sexual Exposures Guidance and use the source patient risk assessment letter and form. See appendices 1 & 2

HCV Assessment

There is no vaccine or post exposure prophylaxis available for HCV. There are effective treatments, however, and it is important that those exposed receive appropriate follow-up so that treatment can be initiated should they become infected.

Follow up

All persons who have sustained a significant injury (irrespective of whether the source patient is high risk or not) should have follow up BBV testing:

- For HCW follow up is at Occupational Health.
- For non HCW follow up should be arranged with the GP or if the injury was sustained at work with their own Occupational Health Dept if there is one.
- Follow up is for completion for vaccination and BBV testing as required.
- The need for follow up BBV testing depends on the source patient's BBV test results. If the source patient's BBV test results are negative taking into account the window period the follow up BBV testing can be stopped. If any of the source patient's BBV test results are positive or not available follow up BBV testing of the injured HCW/person should be continued.

No significant injury:

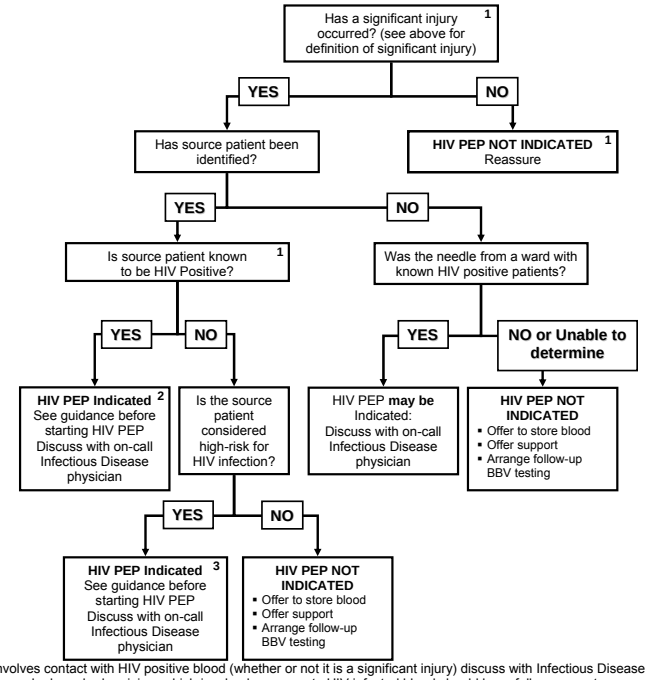
- Reassure no further action required. If the injury involved contact with HIV positive blood discuss with Infection Disease physician on call.
- Advise health care workers to complete a Datix form and to inform their Occupational Health Department as soon as possible.
- If there is potential for repeated exposure to Bloodborne Virus (BBV), check hepatitis B vaccination history. If unvaccinated or incomplete, advise to attend their Occupational Health Department for vaccination.
- Members of the public requiring further reassurance should be advised to contact their GP who can arrange further support if required.

Significant injury:

If source patient is known, liaise with clinician undertaking the source patient risk assessment to establish: the risk status of the source, whether blood has been taken for BBV testing, and when the blood results will be available.
Assess the need for HIV PEP, HBV prophylaxis and follow-up BBV testing: see guidance below.
Take storage blood. Request form should state type of injury and 'blood for storage'. See section 3 of guideline for lab information.
Arrange all appropriate follow-up:

- Appointment with Infectious Disease physicians if HIV PEP started.
- Occupational Health (Health Care Worker) or GP (others) if further hepatitis B vaccination and follow up BBV testing required.
- Referral to counselling services if required.
- Advise health care workers to complete an Datix form and to inform their Occupational Health Dept. as soon as possible.
- Instruct the injured Health Care Worker (HCW) to inform occupational health regardless of the outcome of the risk assessment.

HIV assessment and post exposure prophylaxis (PEP)



1. If the injury involves contact with HIV positive blood (whether or not it is a significant injury) discuss with Infectious Disease Physician on call. Persons who have had an injury which involved exposure to HIV infected blood should have follow-up post-exposure testing, medical evaluation and be offered specialist advice and support, whether or not they have received HIV PEP.
2. When source patient is known to be HIV positive, determine (if possible) what anti-retroviral therapy they are currently receiving (or have taken in the past) and which consultant has responsibility for their care.
3. HIV PEP can be discontinued if the source patient's HIV antibody test is negative (taking into account the risk of a source patient window period of infection).

HBV assessment and prophylaxis. See section 2 of guideline for full details on managing

	Significant exposure			Non-significant exposure	
HBV status of person exposed	**HBsAg positive source**	**Unknown source**	**HBsAg negative source**	**Continued risk**	**No further risk**
≤ 1 dose HB vaccine pre-exposed	Accelerated course of HB vaccine* HBIG x 1	Accelerated course of HB vaccine*	Initiate course of HB vaccine	Initiate course of HB vaccine	No HBV prophylaxis. Reassure
≥ 2 doses HB vaccine pre-exposure (anti-HBs not known)	One dose of HB vaccine followed by second dose one month later	One dose of HB vaccine	Finish course of HB vaccine	Finish course of HB vaccine	No HBV prophylaxis. Reassure
Known responder to HB vaccine (anti-HBs > 10mIU/ml)	Consider booster dose of HB vaccine	Consider booster dose of HB vaccine	Consider booster dose of HB vaccine	Consider booster dose of HB vaccine	No HBV prophylaxis. Reassure
Known non-responder to HB vaccine (anti-HBs < 10mIU/ml 2–4 months post-immunisation)	HBIG x 1 Consider booster dose of HB vaccine A second dose of HBIG should be given at one month	HBIG x 1 Consider booster dose of HB vaccine A second dose of HBIG should be given at one month	No HBIG Consider booster dose of HB vaccine	No HBIG Consider booster dose of HB vaccine	No HBV prophylaxis. Reassure

*An accelerated course of vaccine consists of doses spaced at zero, one and two months. A booster dose may be given at 12 months to those at continuing risk of exposure to HBV. Source: PHLS Hepatitis Subcommittee (1992).

The full guideline and supporting documentation can be accessed at following link through staff net
StaffNet > Info Centre > Policies, Procedures and Guideline Documents > NHS GG&C Clinical Guideline Electronic Resource Directory