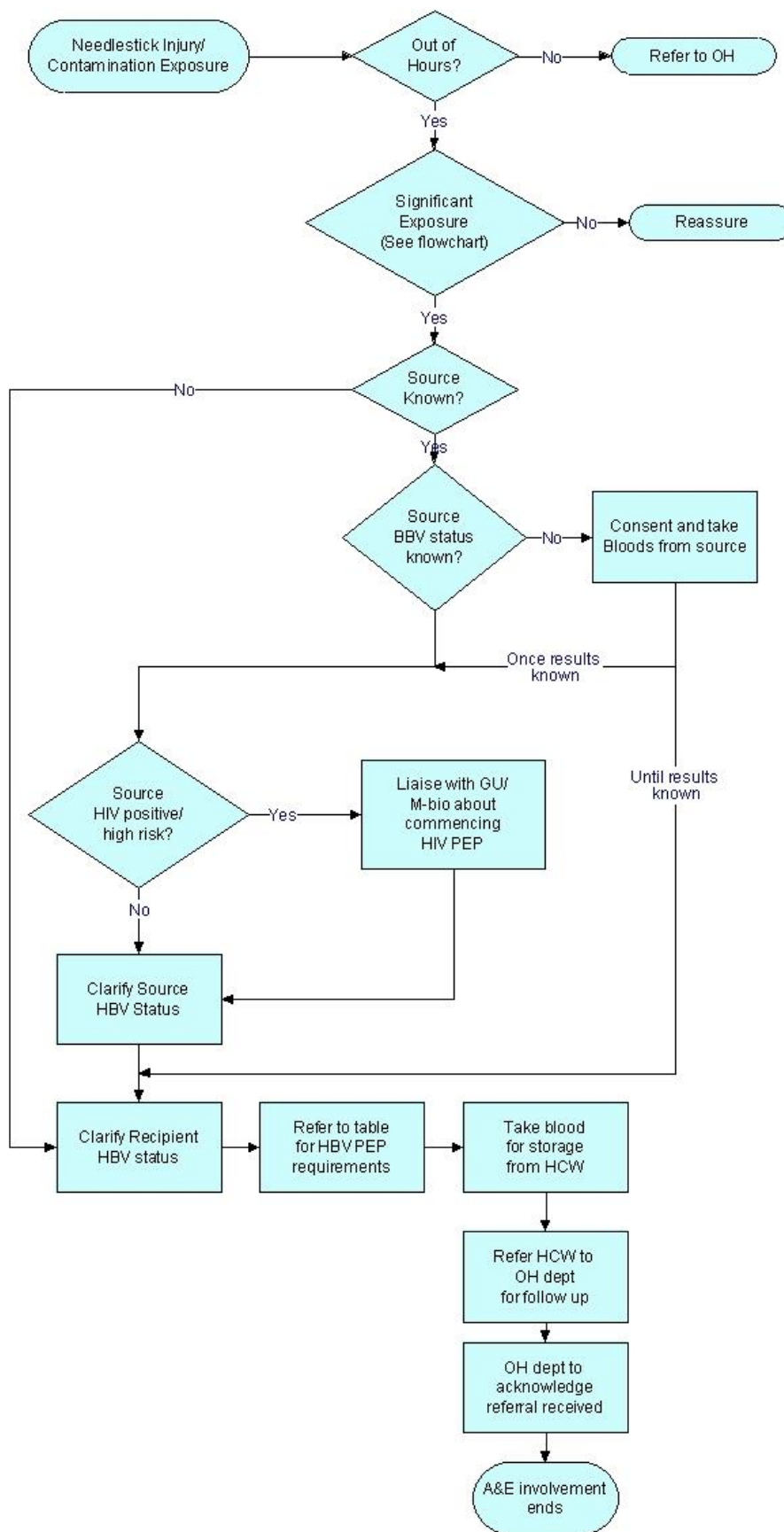
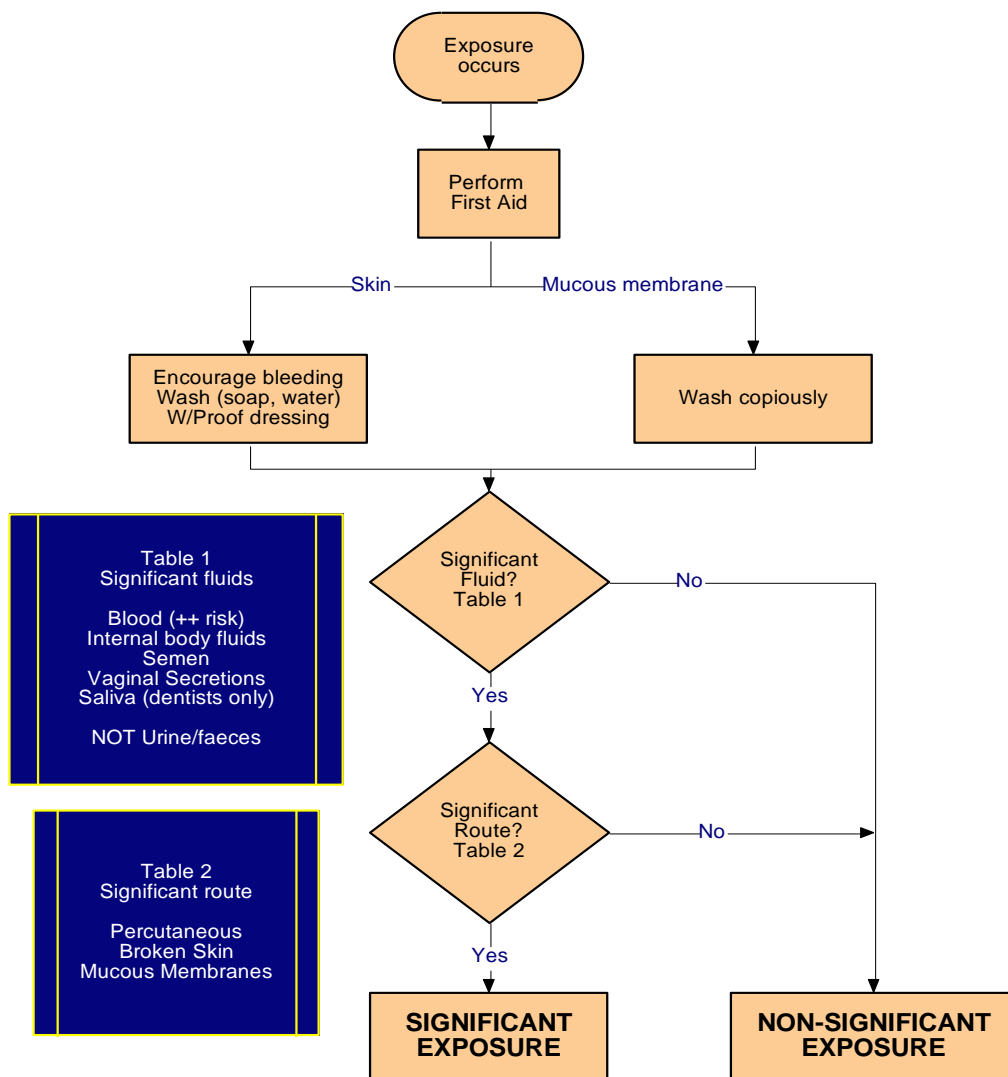


## ED Management of Needle Stick Injuries in Health Care Workers from GHNHSFT



The Occupational Health (OH) department is responsible for the management of healthcare workers who are exposed to blood borne viruses at work. As the OH department does not provide cover out of hours, the initial management of exposures during these times are co-ordinated by the Emergency Departments, (EDs). This procedure is to be followed only for employees of the local NHS Trusts. **It does not apply to members of the public, or workers from other organisations that are exposed to BBVs.** Guidance for those groups is available separately, see ED guidelines intranet site.

**What is significant exposure;**



## How do I assess if the source of the contamination is high risk?

The prevalence of HIV infection and other blood borne viruses is higher in certain groups.

1. Check the patient's history and notes. Are there any previous blood results for hepatitis B, hepatitis C or HIV?
2. Consider whether the following risk factors may apply:
  - Originated from sub-Saharan Africa
  - Men who have sex with men
  - Intravenous drug users
  - Sex industry worker
  - Unprotected sex with any of the above
  - If the source is a child does the mother have HIV?
  - If the source patient is known to have or is under investigation for an AIDS indicator illness, then consider as high risk.
3. Remember that Gloucestershire has a low HIV prevalence compared with other places and this is particularly true for intravenous drug users and sex industry workers.

## How do I consent and take bloods from the source?

If the patient is on the ward then the team looking after the patient should take responsibility for this. If the patient is in the ED then someone other than the treating clinician should approach the patient. Consent must be taken from the source patient for these tests.

A suggested form of words, taken from the Gloucestershire Hospitals NHS Foundation Trust policy, would be:

*"Unfortunately one of the members of staff has had an accidental injury where your blood (or specify relevant body fluid) has been "involved". I am here to ask if you would let me take a blood sample for testing for the viral infections that can be transmitted to staff in this way. This is something that we ask for routinely whenever a patient's blood (or specify relevant body fluid) is involved in such an accident. We need your agreement to do this and would appreciate your help.*

*The purpose of the testing is to reassure staff where the results are negative. This may allow them to stop taking precautionary medication that often causes unpleasant side effects. In the unlikely event that a test is positive you will receive specialist advice and management including treatment if required. The staff member may also be offered additional treatment.*

*The tests are for hepatitis B, hepatitis C and HIV. The test results are usually available within a few days but may take several weeks if extra investigations are required for clarification. The results will normally be given to you by a member of the medical staff. The results are confidential, but they will appear in your medical records and the affected staff member will also be informed.*

*Do you have any concerns? A common concern is whether having these tests done will affect any existing life insurance policies or future life insurance applications. The Association of British Insurers has issued guidance stating; "Existing life insurance policies will not be affected in any way by taking an HIV test, even if the result is positive." For new life insurance applications, companies should only enquire about positive test results, not whether a test has been performed. A positive test result may affect the outcome of a life insurance policy application. If you have any other concerns I can ask for a member of the Counselling and Support Service to see you (County HIV/AIDS counselling and support services: telephone 01452 311744).*

*Do I have your permission to take a blood sample for hepatitis B, C and HIV testing? I should remind you that you can refuse to have some or all of these tests performed and that if you do choose not to be tested it will not affect your future care."*

A record of the discussion and patient's consent (or non-consent) to testing for HBV, HCV and HIV should be made in the medical records of the source

## Which blood tests should I take for the injured person?

### Microbiology form

PHLS SOUTH WEST		PLEASE USE BLOCK CAPITAL LETTERS AND BALL POINT PEN		PHLS SOUTH WEST	
Hospital/NHS Number	Hospital	Type of Specimen	Date/Time		
		<b>VB</b>	<b>13.6.00</b>		
Surname		Investigations requested			
<b>Bloggs (staff)</b>		<b>STORE SERUM (orange top)</b>			
First Names		Requesting laboratory number			
<b>Joe</b>					
Date of Birth	Sex	NHS	PP	Consultant/GP	
<b>6.6.1966</b>	<b>M</b>	<b>3</b>		<b>Occupational Health Consultant</b>	
Patient's Address		Address for report/Ward		Copy report address	
<b>insert the home address</b>		<b>Occupational Health GRH/CGH</b>			
Relevant Clinical Details. Antibiotic Treatment Date of Onset			FOR LABORATORY USE ONLY		
<b>Needlestick/contamination incident 13.6.00</b>					
<b>Source patient John Smith DOB 11.11.59</b>					
Bleep No	Signed <b>XXXXXX</b>				
<b>GLoucester Public Health Laboratory      ENQUIRIES 01452 305334/5      internal 4381/2</b>					

**Which blood tests should I take from the source person?****Microbiology form**

PHLS SOUTH WEST		PLEASE USE BLOCK CAPITAL LETTERS AND BALL POINT PEN		PHLS SOUTH WEST	
Hospital/NHS Number	Hospital	Type of Specimen	Date/Time		
		<i>VB</i>	<i>13.6.00</i>		
Surname	Investigations requested				
<i>Smith</i>	<i>Hep B S Antigen, Hepatitis C antibody + HIV antibody (orange top)</i>				
					<b>*(BUT ONLY WITH CONSENT OF THE PATIENT)</b>
First Names	Requesting laboratory number				
<i>John</i>					
Date of Birth	Sex	NHS	PP	Consultant/GP	
<i>11.11.59</i>	<i>M</i>		<i>3</i>	<i>Occupational Health Consultant</i>	
Patient's Address	Address for report/Ward		Copy report address		
<i>insert the patient's home address</i>	<i>Occupational Health GRH/CGH</i>		<i>Patients notes</i>		
Relevant Clinical Details.	Antibiotic Treatment	Date of Onset		FOR LABORATORY USE ONLY	
<i>Source of Needlestick/contamination incident 13.6.00 to Bloggs, Joe (staff) on 13.06.00</i>					
Bleep No	Signed <i>XXXXXX</i>				
GLOUCESTER PUBLIC HEALTH LABORATORY ENQUIRIES 01452 305334/5 internal 4381/2 MICROBIOLOGY					

**What are the risks of contracting a blood borne virus infection after a needle stick?**

Following an injury with a sharp or needle that is obviously contaminated with wet blood, if the source is:

Hepatitis B positive, 30% chance of contracting the illness

Hepatitis C positive, 3 % chance of contracting the illness

HIV positive, 0.3 % chance of contracting the illness.

If the injury involves a splash to the eye or mucous membrane, the risk of contracting the illness is significantly lower.

If the source of the sharps injury is unknown, the risks are very low. The prevalence of HIV in Gloucestershire remains low. Healthcare staff should all be vaccinated against hepatitis B and it is an effective vaccine. Hepatitis C carriage rate in the IV drug user population is now quite high.

OH will offer a follow up blood tests after a contamination injury from an unknown source or a source where it has not been possible to test the status.

## **What do we do in the ED next?**

### **We consider the need for protection against HIV and HBV;**

#### **HIV**

If the source is HIV positive, or at high risk (see above), starting HIV PEP needs to be considered.

Because the prevalence of HIV infection in Gloucestershire is low, even within these high risk groups, HIV PEP will not normally be started unless HIV infection is confirmed, or the source is demonstrating overt signs of AIDS.

However, the injured person's perception of risk must be considered.

Consult an ED senior clinician if you are unsure about this. If the needle stick injury occurred >72 hrs ago then PEP is not recommended. PEP should be prescribed from the ED. This should be issued from the pharmacy directly wherever possible or out of hours can be found in GRH ED TTO cupboard or the emergency drug cupboard at CGH.

This should be prescribed as "x1 HIV Post exposure prophylaxis pack".

It contains a 3 day supply of Truvada and 3 day supply of Raltegravir and patient information leaflets.

Truvada is to be taken OD, Raltegravir BD.

It is no longer necessary to routinely prescribed antiemetics or antidiarrhoeal's with PEP.

#### **Pre prescription checks include:**

- Will treatment be commenced within 72 hours of exposure? DO NOT give PEP if it is over 72 hrs. Send bloods and arrange follow up with OH.
- General health and current medication
  - PEP medication absorption can be decreased by calcium, iron, magnesium, aluminium, vitamins and other minerals. If the patient is taking these advise them to take these at least 4 hours after taking their PEP.
  - PEP should not be taken with rifampicin.
  - If taking OCP, female pts should be advised to use barrier contraception. (Ensure all recipients understand the need to use barrier contraception until seroconversion has been excluded).
- If a pt is pregnant, or pregnancy cannot be excluded, urgent pre-treatment pregnancy test should be arranged but pregnancy should not preclude the use of PEP. Although knowledge about efficacy and toxicity of PEP drugs in pregnancy is limited many, many pregnancy people have now been safely treated with HIV treatments.

#### **Advice to give your patient.**

There are patient information leaflets in the PEP pack but also print and give this helpful information leaflet to your patient [PEP patient advice leaflet](#).

## Hepatitis B

**HBV Post-exposure prophylaxis table**

HBV status of person exposed	Significant exposure			Non-significant exposure	
	HBsAg positive source	Unknown source	HBsAg negative source	Continued risk	No further risk
≤ 1 dose of HB vaccine pre-exposure	HBIG x 1 Accelerated course of HB vaccine*	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 (surface antibody level 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 (surface antibody level > 10 miU/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 **	HBIG x 2*** Consider booster dose of HB vaccine	HBIG x 2*** Consider booster dose of HB vaccine	No HBIG Consider booster dose of HB vaccine	No HBIG Consider booster dose of HB vaccine	No HBV prophylaxis. Reassure

\* An accelerated course of HB vaccine consists of doses spaced at 0, 1 and 2 months. A booster dose may also be given at 12 months to those at continuing risk of exposure to HBV.

\*\* Surface antibody level < 10 miU/ml 2-4 months post-immunisation.

\*\*\* For a known non-responder to hepatitis B vaccine (who has required HBIG following the incident) a second dose of HBIG should be administered one month after the first unless the source is shown to be HBsAg negative.

Hepatitis B immunoglobulin is available via transfusion.

Hepatitis B vaccine – “Energix B” is available in the ED, follow up vaccination should be undertaken by OH.

**Please note:** there is no prophylaxis for Hepatitis C, so this does not need to be assessed by the ED team. If a source is demonstrated to be Hepatitis C positive, the OH team will manage this.

### Now what?

Once the patient has received necessary treatments and counselling they can be discharged from the ED with referral on to Working Well Occupational Health service via telephone number 01452 894480, or email [workingwell@nhs.net](mailto:workingwell@nhs.net) . They should be able to self refer to this system.

### Advice for the health care worker;

If the HCW has received treatment for their HIV or HepBV exposure then advise them to use barrier contraception for any sexual contact they may have but otherwise need not adjust their activity in anyway. They can continue to undertake all procedures at work as necessary provided they follow the usual PPE requirements for those procedures but may not donate blood until follow up checks are completed. They should avoid sharing toothbrushes or razors. They must advise their line manager of the incident and complete a Datix.