

For **Occupational exposures** see [1st aid](#) + [PEP](#)

For **Sexual exposures** see [PEPSE](#)

IS EXPOSURE SIGNIFICANT?

Significant:

Percutaneous exposure (needle / bite)
Mucotaneous exposure (broken skin, mucous membrane, eye) involving infective body fluid (**box1**), including human bites (who will potentially also need antibiotic prophylaxis)

Non-Significant:

Mucotaneous exposure involving non-infective body fluid (see **box1**)
Exposure to intact skin (no skin integrity loss)

1) Determine PEP requirement

Dry/stale body fluid?
(e.g. the needle in park)

N Y

Occurred >72 hours ago
**unless source HIV positive*

N Y

Calculate HIV risk
(box 3)

High Low

PEP

d/w on-call ID Dr to confirm PEP required and arrange follow up

- Seven Salient points:
- Exclude pregnancy
 - Start immediately
 - Finish 4 week course
 - Beware medication interactions
 - Unlicensed
 - Practice safe sex
 - Warn re: side effects

See [Post exposure prophylaxis](#) for prescribing advice

***If either victim or source are known HIV positive then d/w Infectious Diseases**

Continue with risk assessment...

2) Hep B risk assessment

Y ← Is victim known Hep B +ve?

N

Is Source Hep B +ve

Y

Source unknown or not Hep B +ve

Check victim Hep B immunisation status

Known non-responder

Unvaccinated
(Or only 1 dose of Hep B vaccine)

2 or more Hep B vaccine doses but unknown response

Known responder

d/w Microbiology

Give accelerated course of Hep B vaccine

Give 1 dose of Hep B vaccine

Consider booster (box2)

Consider need for HBVac / booster (box 2)

Discharge
Proforma GP letter (page 3)

3) DISCHARGE FOLLOW UP

- Ensure patient has had baseline bloods (Serum Save, UE, LFT, FBC)
Practice safe sex
Complete proforma GP letter (see page 3) for:
- Testing at 3 months for Hep C, B and HIV
 - Needs **six week** Hep C RNA testing if high Hep C risk (source known/suspected IVDU or Hep C +ve)
 - +/- Completion of Hep B Vaccination

Box 1

INFECTIVE BODY FLUIDS LIKELY TO BE FOUND IN THE COMMUNITY:

Blood or any blood stained bodily fluid

Human bites: potential for exposure both as victim and assailant
 Amniotic fluid
 Breast milk
 Fluid from burns / skin lesions / wounds
 Peritoneal or pleural fluid
 Semen
 Vaginal secretions

Definitions

Hep B +ve = Known HBsAg and/or HBV DNA positive

Accelerated course = vaccine dose @ 0, 1, 2 + 12 months

Victim = the patient in front of you

Source = the source that the blood came from – this often will be unknown in the community

Microbiology and Infectious Disease doctors can be accessed via switchboard.

Box 2

BOOSTER / VACCINATION NEED

Consider need for booster / vaccination if there is thought to be continued risk of exposure to Hep B (see [BNF](#) for full list)

Box 3

HIV RISK EXPOSURE CALCULATOR

HIV status of patient	Type of exposure ie wound contaminant	Route of exposure ie injury type
3 Known positive	3 Exposure to fresh blood or other "high risk" material	3 Percutaneous injury Skin contamination Mucous membrane Sexual exposure
2 Strongly suspected *	2 Visibly blood stained "low risk" material	
1 Low risk group	1 "Low risk" materials (urine, vomit, saliva, faeces)	1 Other type of exposure

* PEP should be given as soon as possible after exposure and ideally within 1 hour of exposure.

Whilst there can be little doubt about risk assessment with a known positive source there is scope for debate over 'strongly suspected' and 'low risk' groups. Such situations can be discussed with the Infectious diseases Consultant on call (contact via Nottingham City Hospital switchboard).

'Strongly suspected' might reasonably include

- a patient who is a sexual contact of someone with HIV, but has not yet been tested
- a patient who has refused an HIV test in the past.
- An unwell patient with an illness where HIV is suspected e.g. immunocompromised, PCP, but not yet tested
- Persons in 'risk groups' (e.g. men who have sex with men, intravenous drug users and black Africans)

Multiply the three individual numerical scores to get the total score:

RISK STATUS	MULTIPLIED SCORE	PEP RECOMMENDATION
HIGH	12 - 27	RECOMMENDED
LOW	1 - 11	NOT RECOMMENDED

Incidence of HIV in Nottingham City = 2/1000 population (County lower)

No case of HIV transmission from 'needle in the park' is documented

Hepatitis C remains biggest risk from needle stick injury (~49% of IVDUs have Hep C)

See information box below for HIV risk of transmission

Risk assessment¹

Probability Source Positive		X	Transmission risk per event	
Community group	HIV seroprevalence (%)	Type of exposure	Estimated risk of HIV transmission per exposure (%)	
Homosexual men		Blood transfusion (one unit)	90-100	
London	20.30	Receptive anal intercourse	0.1-3.0	
Scotland	3.20	Receptive vaginal intercourse	0.1-0.2	
Elsewhere	3.60	Insertive vaginal intercourse	0.03-0.09	
Heterosexuals		Insertive anal intercourse	0.06	
Region of birth		Receptive oral sex (fellatio)	0-0.04	
UK	0.5	Needle-stick injury	0.3	
Rest of Europe	2	Sharing injecting equipment	0.67	
North America	2.9	Mucous membrane exposure	0.09	
Central and South America	2.4			
Caribbean	1.2			
North Africa and Middle East	0.5			
Sub-Saharan Africa	6.9			
South Asia	0.5			
East and South East Asia	0.5			
Australasia	0.8			
Injecting drug users				
London	2.90			
Elsewhere in the UK	0.50			

¹) UK Guideline for the use of post-exposure prophylaxis for HIV following sexual exposure, International Journal of STD & AIDS 2006; 17: 81-92

GP letter proforma

A&E STAFF : copy and paste this into pre-printed GP letter, delete as appropriate*

Dear GP

This patient has attended A+E after having been potentially exposed to a blood borne virus

After assessment his exposure was deemed ***SIGNIFICANT / NON-SIGNIFICANT**

HIV risk was calculated as ***LOW / HIGH**

Post exposure HIV prophylaxis was ***STARTED / NOT REQUIRED**

Hepatitis B risk assessment resulted in:

***IMMUNOGLOBULIN**

***BOOSTER**

***ACCELERATED COURSE**

***NO EMERGENCY ACTION**

Baseline bloods including a serum save have been taken

Specific GP instructions:

***NO FOLLOW UP REQUIRED**

***ARRANGE FOR 3 MONTHS FROM NOW TESTING FOR HIV, HEP C & B**

***ARRANGE 6 WEEK TESTING FOR HEP C RNA (SOURCE KNOWN / SUSPECTED HIGH RISK)**

***ARRANGE FOR COMPLETION OF HEP B VACCINATION**