Management of Accidental Exposure to Blood or Body Fluids (AEB) and Administration of Post-Exposure Prophylaxis (PEP) for HIV and Hepatitis B

Medical Department OCB

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I. Contents

II. Abbreviations

3TC	Lamivudine
AEB	Accidental Exposure to Blood
ALT	Alanine Aminotransferase (= a liver enzyme)
ATV/r	Atazanavir/ritonavir
AZT	Zidovudine
CrCl	Creatinine Clearance
HIV	Human Immunodeficiency Virus
Hb	Hemoglobin
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
LPV/r	Lopinavir/ritonavir
PEP	Post Exposure Prophylaxis
PLWHA	People living with HIV/AIDS
TDF	Tenofovir

III. Executive Summary

In the majority of settings where MSF works we are faced with a high prevalence of human immunodeficiency virus (HIV) and hepatitis B (HBV). In some settings and populations, hepatitis C (HCV) may also be prevalent. Transmission of these agents can occur through:

- injury with a needle or any other sharp instrument contaminated with infected blood or other body fluids
- direct contact between infected blood or body fluids on mucous membranes (e.g. mouth and eyes) and damaged skin (e.g. cutaneous cuts, abrasions)
- unprotected sexual contact (also including rape)
- unsafe blood transfusion

This guideline describes the risks of infection, the preventive measures, and the procedures to follow after an Accidental Exposure to Body fluids or Blood (AEB). For exposure following rape or unprotected sexual intercourse please refer to the international MSF guideline on sexual and gender-based violence (SGBV).

AEB is defined as any contact with blood or a body fluid as a result of an injury with a needle or any other sharp instrument or via mucous membranes (e.g. mouth or eyes) or an existing cutaneous condition (wound, eczema, scratch etc.). Body fluids include all body fluids e.g. saliva, semen, urine and vaginal secretions.

The average risk for HIV transmission after a single percutaneous exposure to HIV-positive blood is low (see table 1). This risk is considerably lower than that arising from hepatitis B and C viruses (100 times and 10 times less, respectively).

There is also a risk of transmission of any other infectious agent present in the blood (hemorrhagic fevers, trypanosomiasis, etc.).

It is important to remember that HIV and other viruses are far more likely to be transmitted by UNPROTECTED SEXUAL RELATIONSHIPS or through TRANSFUSION of blood that has not been tested for viruses.

Table 1*:* Risk for transmission after occupational exposure to infected blood

Agents	Exposure mode	Risk of infection
HIV	Percutaneous exposure	0,3%
HIV	Mucocutaneous contact*	0,03-0,09%
HBV	Percutaneous exposure	10-30%
HCV	Percutaneous exposure	0-10%

* This refers to the exposure of mucous membranes (e.g. mouth or eyes) or cutaneous cuts or abrasions.

The most common procedures presenting a risk of percutaneous exposure to contaminated blood include:

- taking blood samples from arteries or veins and samples of other body fluids visibly contaminated with blood, inserting and handling drips, particularly in emergency situations
- activities related to surgery, particularly during major surgical interventions of long duration or where haemorrhage may occur
- the handling of blood or infectious body fluids by laboratory staff
- activities related to the cleaning, handling and destroying of contaminated medical material and medical waste

Health care personnel are considered to be at risk of infection from hepatitis B, hepatitis C and HIV as the result of AEB. This risk does not only concern medical and paramedical staff but also non-medical staff such as cleaners, laundry staff and waste managers.

All MSF staff share an individual and collective responsibility for avoiding AEB. All MSF staff (expatriate and national) must be informed about how to protect themselves against AEB, and must be reminded of those on a regular basis. The medical responsible for staff health must ensure that information about standard universal precautions and infection control procedures are given to staff. All MSF personnel must be given information on how to prevent AEB and how the AEB procedures have to be followed. The Medical Coordinator (MedCo) must ensure that AEB guidelines, the AEB poster and PEP treatment are available in each project site, and that procedures are followed appropriately. For this, the MedCo may appoint a member of the medical staff, preferably a doctor, who is responsible for staff health including post-AEB prophylaxis and the follow-up of each case in the project site.

All staff who might be exposed to Hepatitis B virus and *Clostridium tetani* (i.e. Tetanus) must be vaccinated as a general preventive health measure, before any AEB happens. There is no vaccine or prophylaxis available against hepatitis C.

Since some of these infections can be transmitted through sexual contact, condoms should be available in every project and the use of condoms should be promoted.

Immediate first aid and early treatment with anti-retroviral drugs (ARVs), within 72 hours, can reduce the risk of HIV transmission after AEB.

Two PEP kits each containing a one-month supply of prophylactic ARV medication must be available in each clinic site or project/coordination office. The coordinator at capital level must send a replacement PEP kit to the field in case another AEB occurs.

In each mission the following should be identified:

- A medical doctor, who can supervise treatment, medical follow up and who is responsible for the notification of AEB for both international and national staff.

- A laboratory with the capacity for testing for HIV, HBV and HCV serology by 8 days, 3 months and 6 months after exposure and the necessary baseline and monitoring tests (pregnancy test, creatinine, ALT). This requires that every mission identify whether such facilities are available locally or regionally.
- A person responsible for pure administrative issues regarding reimbursement of medical care and insurance matters.

In each mission the following documents should be easily available:

- A template of a medical record
- The information sheet on prophylaxis and follow up after AEB (see Annex 1)
- The PEP treatment refusal /consent form (see Annex 2)
- The AEB notification form (see Annex 3)

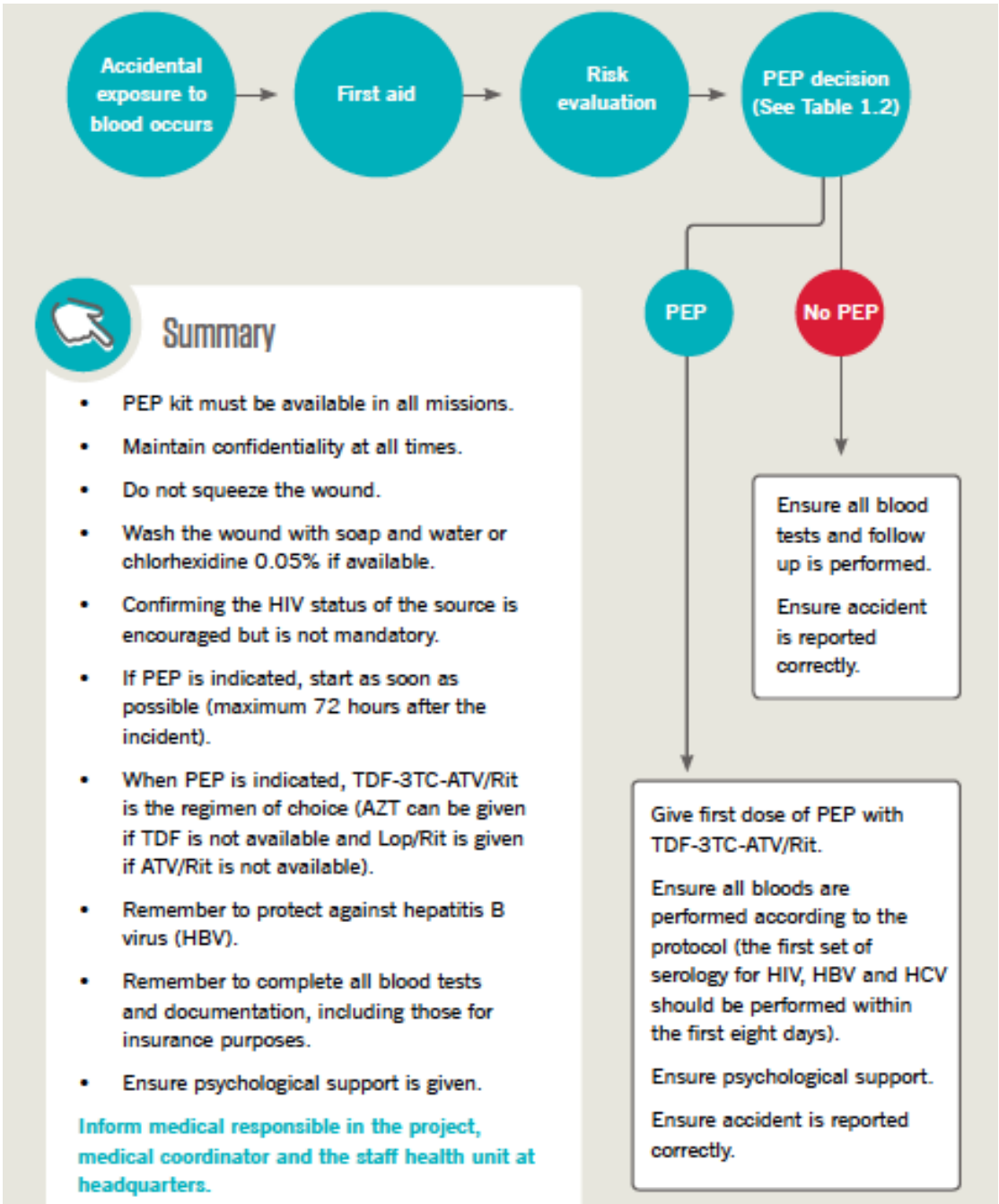
In case of questions or problems, the respective Medical Coordinator should be contacted. If the MedCo is not available, the Staff Health Unit in Brussels can be contacted at the e-mail address or telephone number below:

Staff Health Unit, MSF OCB
Staffhealthunit@brussels.msf.org
+32 2 474 75 51

IV. Summary of procedures

(Algorithm and Table taken from MSF's HIV/TB Clinical Guide, 8th edition, 2014)

Algorithm: MSF OCB PEP Protocol



Note: If a bite is deep (e.g. open wound, bleeding), then consider giving PEP.

Table 1.2: To decide who needs PEP

Type of exposure	HIV status of source patient unknown	Source is HIV positive	Source is HIV negative but HIV prevalence >1% OR source patient in high risk group (commercial sex worker, MSM, injecting drug user)
• Any needle stick injury • Any cut from a scalpel contaminated with blood • Deep wound with a material contaminated with blood • Mucous membrane or damaged skin in contact with a significant amount of blood • Any rape	Give PEP	Give PEP	Consider PEP
• Bite • Scratch • Contact with blood on undamaged skin • Contact with other body fluids not containing blood (CSF, saliva, urine)	No PEP	No PEP	No PEP

Step 1: First Aid

Psychological Support

An AEB and the prescription of PEP can cause great anxiety for the person concerned. The medical doctor to whom the person presents should ensure adequate time is given to explain the risks of transmission.

Support regarding adherence to the PEP if it is indicated is essential. The person exposed should be able to seek support and advise at any point during the period of taking prophylactic medication and follow up.

Is the Skin Damaged? (e.g. needle stick injury or cut)

IF YES:

- Do not squeeze or rub the lesion
- Wash with soap and water
- Rinse with water
- Disinfect with a mild disinfectant solution that will not irritate the skin e.g. Chlorine solution of 0.05% or Povidone Iodine 10%
- Contact the medical responsible for staff health in the project for further follow up

IF NO: (e.g. splash)

- Wash with soap and water
- Rinse with water
- Disinfect with alcohol-based hand rub or Chlorine solution of 0.05%
- Contact the medical responsible for staff health in the project for further follow up

Was the contact a splash in the eye?

IF YES:

- Irrigate the exposed eye immediately with saline solution (NaCl 0.9%)
- Sit in a chair, tilt the head back and have a colleague gently pour saline solution over the eye, pulling the eyelids up and down to make sure the eye is cleaned thoroughly.
- If contact lenses are worn, leave these in place while irrigating the eye, as they form a barrier over the eye and will help protect it. Once the eye has been cleaned, remove the contact lenses and clean them in the normal manner.
- Do not use soap or disinfectant on the eye.
- Contact the medical responsible for staff health in the project for further follow up

Was the contact a splash in the mouth?

iF YES:

- Spit the fluid out immediately.
- Rinse the mouth with water
- Disinfect by rinsing with povidone iodine 10% solution or chlorine 0.05% solution
- Rinse the mouth with water
- Contact the medical responsible for staff health in the project for further follow up

Step 2: Assessing the source patient

Test the source patient for HIV, Hepatitis B and C

If the source of the AEB can be identified, it can be useful to test the source patient for HIV, Hepatitis B and Hepatitis C, and reassuring if proved negative.

However in high prevalence settings (HIV prevalence >1%), even when the source patient has had an HIV negative result, PEP should still be considered as seroconversion may be taking place (i.e. the window period) during which HIV rapid antibody tests will remain negative.

Where the patient is HIV positive and on treatment knowing the viral load of the patient may also be of reassurance if known to be virologically suppressed, but again

does not mean that the person exposed should not take PEP. If an HIV positive patient is found to be failing a second line protease inhibitor based regimen please contact your HIV advisor for further advise on the best choice of PEP regimen.

Step 3: Assessing the exposed person

Important: Has the exposed person already been infected with HIV, Hepatitis B or C some time in the past?

Test the exposed person for HIV, Hepatitis B and Hepatitis C

To determine the best course of action we need to know if the exposed person is already infected with HIV, Hepatitis B or Hepatitis C. Rapid tests for this should be available in all project sites. **If not performed at baseline, they should be performed within 8 days for medico-legal purposes.**

NOTE: AVAILABILITY OF HIV TESTING OR CONSENT TO TESTING SHOULD NOT DELAY THE ADMINISTRATION OF PEP FOR HIV WHEN IT IS INDICATED.

HIV testing should follow the standard national algorithm[1] using two HIV rapid tests. If the tests are positive for an expatriate or in a low prevalence HIV context a third confirmatory test will be needed. Please contact your laboratory advisor for further advice for your setting. If positive the person should be appropriately referred for further investigation and treatment.

What type of exposure was it?

Types of exposure that need consideration of PEP for HIV and Hepatitis B are:

- Any needle stick injury
- Any cut from a scalpel contaminated with blood
- A deep wound with material contaminated with blood
- Mucous membranes (e.g. mouth or eyes) or damaged skin in contact with a significant amount of blood
- Any sexual assault

Exposures that do not need consideration of PEP for HIV and Hepatitis B are:

- A bite
- A scratch
- Contact with blood on undamaged skin
- Contact with other body fluids not containing blood (CSF, saliva, urine)

[1] ***Rapid HIV Tests: Guidelines for use in HIV testing and counselling services in resource-constrained settings. WHO 2004*** http://applications.emro.who.int/aiecf/web28.pdf

What is the medical history of the exposed patient?

A full medical and drug history should be taken from the patient to determine if there are any contraindications for PEP. In particular assess any history of **underlying renal disease, diabetes or hypertension, evidence of vaccination for hepatitis B and any concomitant use of potentially nephrotoxic drugs.**

Step 4: What Baseline Blood tests are needed?

If possible a complete blood count, creatinine and liver test (ALT) should be done at the start of treatment to establish baseline levels. Although none of the drugs used for HIV PEP are contraindicated in pregnancy, a baseline pregnancy test should be performed in women of child-bearing age.

Availability of blood or other tests should NOT delay starting the first dose of PEP.

The full dose of Tenofovir (TDF) is contraindicated when the creatinine clearance is < 50ml/min.

To calculate the creatinine clearance (CrCl), use the formula below.

$$CrCl = \frac{(140 - age) \times weight\ (kg)}{Creatinine\ (umol/l)}$$

Multiply the result of above in women x 0.85

If CrCl is < 50 ml/min, AZT can be used (as long as the Hb > 8 g/dl) or the TDF dose can be reduced by alternate day dosing (please contact your HIV advisor for further advice.

Step 5: Does the exposed person need PEP for HIV?

Type of exposure	HIV status of source patient unknown	Source is HIV positive	Source is HIV negative but HIV prevalence >1% OR source patient in high risk group (commercial sex worker, MSM, injecting drug user)
• Any needle stick injury • Any cut from a scalpel contaminated with blood • Deep wound with a material contaminated with blood • Mucous membrane or damaged skin in contact with a significant amount of blood • Any rape	Give PEP	Give PEP	Consider PEP
• Bite • Scratch • Contact with blood on undamaged skin • Contact with other body fluids not containing blood (CSF, saliva, urine)	No PEP	No PEP	No PEP

The decision to give PEP should be made between the person and clinician after a thorough discussion of the risks vs. benefits.

When should PEP for HIV be given?

PEP SHOULD BE GIVEN AS SOON AS POSSIBLE

In order to work effectively, PEP should ideally be started within one hour of the incident up to a maximum interval of 72 hours. Treatment after an interval of 72 hours may be considered in case of massive exposure – a situation that requires the opinion of an HIV specialist.

If access to the first choice ARV regimen is not available immediately, **use alternative regimens for the first few doses** in order to start treatment **as soon as possible**.

What PEP should I give for HIV and for how long?

THE FIRST CHOICE REGIMEN FOR ADULTS AND CHILDREN > 35KG IS TDF + 3TC + ATV/R

THE FIRST CHOICE REGIMEN FOR ADULTS AND CHILDREN < 35KG AND CHILDREN < 6 YEARS IS AZT + 3TC + LPV/R

PEP SHOULD BE GIVEN FOR 28 DAYS

PREGNANCY SHOULD BE AVOIDED WHILST ON PEP

Two PEP kits each containing a one month supply of prophylactic medication must be available in each clinic site or project / coordination office.

First Choice regimen for Adults (> 35kg)

Tenofovir (TDF) 300mg + Lamivudine (3TC) 300mg is given as a fixed dose combination once a day

+

Atazanavir (ATV) 300mg boosted by ritonavir (r) 100mg is given as a fixed dose combination once a day

Notes:
1. TDF may be contraindicated where there is known significant renal impairment (Creatinine Clearance < 50ml/min).

2. This regimen can be used if the exposed person is pregnant.

3. If TDF is not available or there is known abnormal renal function and Hb is > 8 g/dl:

Substitute TDF with AZT 300mg twice daily. (This is hopefully available in your setting as a fixed dose combination: AZT 300 mg + 3TC 150 mg, given as one tablet twice daily.)

4. If ATV/r is not available, substitute with Lopinavir 400mg/ Ritonavir 100mg (LPV/r) twice a day (available as Aluvia = Lop 200 mg + ritonavir 50 mg, given as 2 tablets twice daily).

5. If neither ATV/r nor LPV/r is immediately available, Efavirenz (EFV) may be used until either can be sourced. EFV can be used throughout pregnancy.

6. The key principle is to start triple therapy **as soon as possible**.

Treatment of possible side effects

Possible side effects may occur mainly at the beginning of the treatment, and commonly include nausea and diarrhoea. The person taking the treatment should be informed that these may occur and **should be dissuaded from stopping the treatment** as most side effects are mild and transient, though possibly uncomfortable. There is a very rare chance of renal dysfunction occurring with TDF. If AZT is used, anaemia and/or leucopenia and/or thrombocytopenia may occur during the month of treatment. More rarely hepatitis has been reported (presenting as jaundice +/- abdominal pain).

A prescription of antiemetic medication such as domperidone or metoclopromide may be given routinely alongside the initial antiretroviral prescription in order to reduce troublesome side-effects.

Paediatric PEP regimen
Although TDF is licensed for use in children as young as the age of two years, formulations for young children are not yet available in the field.

Atazanavir is licensed only for children more than 6 years of age and again formulations for younger children < 35kg are not readily available. ATV 300/ R 100mg can be used if the child is more than 6 years old and more than 35kg.

If the child is less than 6 years or less than 35 kg use:

AZT + 3TC twice daily according to the paediatric weight band tables (see Table 2 below)

+

Lopinavir/ritonavir (LPV/r) twice daily according to the paediatric weight band tables (see Table 2 Below)

Table 2: Paediatric ARV dosages

PEP for children <35kg or <6 years Dosage per regimen and weight category						
Regimen and dosage	**AZT/3TC 60mg/30mg**		**LPV/r* 100mg/25mg**		**LPV/r** 80+20mg/ml**	**AZT/3TC 300mg/150mg**
3-3.9kg	1 pill am			+	1 ml am	
	1 pill pm			+	1 ml pm	
4-5.9kg	1 pill am			+	1.5 ml am	
	1 pill pm			+	1.5 ml pm	
6-9.9kg	1 ½ pills am			+	1.5 ml am	
	1 ½ pills pm			+	1.5 ml pm	
10-13.9kg	2 pills am	+	2 pills am	or	2 ml am	
	2 pills pm	+	1 pill pm	or	2 ml pm	
14-19.9kg	2 ½ pills am	+	2 pills am	or	2.5 ml am	
	2 ½ pills pm	+	2 pills pm	or	2.5 ml pm	
20-25kg	3 pills am	+	2 pills am	or	3 ml am	
	3 pills pm	+	2 pills pm	or	3 ml pm	
25-34.9kg			3 pills am	+		1 pill am
			3 pills pm	+		1 pill pm

***Lopinavir/Ritonavir tablets **Lopinavir/Ritonavir syrup**

am = morning dose
pm = evening dose

Information on PEP for the exposed person

The information leaflet (Appendix 1) should be discussed and given as a printed copy to anyone receiving PEP.

Step 6: Does the person need any prophylaxis to prevent Hepatitis B or C?

Currently there is no available vaccination or other PEP for hepatitis C.

<u>Preventive vaccination against hepatitis B</u>:

All MSF medical staff (national and expatriate) who might be exposed to Hepatitis B virus must be vaccinated against hepatitis B (3 doses at D0, M1, M6) and should have

their response to vaccination assessed (i.e. anti-HBs titer checked) 4-8 weeks after completion of vaccination. If the person develops HBs titre > 10mIU/ml 4-8 weeks after vaccination, he/she is immune for hepatitis B.

If 4-8 weeks after the last vaccination dose the HBs titre is lower than 10 mIU/ml, then the person is in need of a second three-dose vaccination (3 doses at D0, M1, M6). Again HBs titre should be checked 4 to 8 weeks after. If the HBs titre is above >10mIU/ml then immunity against hepatitis B is acquired.

If not, then the person is a 'non responder'. In that case it is strongly recommended to test the person for HBsAg, since he/she might be positive for hepatitis B, which is one of the reasons why a person does not respond to HB vaccination.

Non responders cannot be protected against HBV by vaccination and must pay even more attention to preventive measures against AEB, such as the use of personal protective equipment or should be assigned to another job with less exposure to risks.

In case of accidental exposure to blood or other body fluids:

If the exposed person has been vaccinated with a primary three-dose series and ever had Anti-HBs titer > 10 mIU/mL, there is no need for revaccination.

Vaccination with a rapid schedule, 4 doses (day 0 – 7 and day 21 with a booster dose 12 months later) is recommended in case of exposure of

- A non-vaccinated individual
- A person who did not finish primary vaccination against HBV
- A person who completed his / her vaccination but never had a check of his/her anti HBs titre 4 to 8 weeks after the end of the vaccination
- Any doubt about coverage or response

Again Anti-HBs titre should be checked 4-8 weeks after the last dose of the rapid schedule.

Non responders should be monitored for signs of hepatitis B. Transaminase levels and serology tests are useful to monitor this (refer to step 8).

Role of hepatitis B immunoglobulin (HBIg):

Generally, according to the evidence the use of HBIg adds little extra benefit in case of PEP in adults (when status of the source patient is unknown) and is only indicated in case of exposure to HBsAg-positive blood or body fluids. Additionally taking into account the concerns related to supply, storage, safety of use and high costs, the use of HBIg is not indicated, feasible and therefore not recommended in most MSF settings.

The only exception to this general rule is when MSF runs projects in settings where the use of HBIg is indicated in the national protocol and can be purchased safely locally. In this case, the MedCo should have the final decision and offer staff the standard care required and available in the country.

Whenever HBIG must be given, one dose of hepatitis B immunoglobulin (HBIG) should be given with the first dose of vaccine but in a separate injection site location.

Step 7: Is prophylaxis needed for any other diseases?

Tetanus immunoprophylaxis is administered according to the vaccination status of the exposed person and to the type and degree of injury (N.B. but unrelated to the source patient since tetanus is NOT blood borne). A percutaneous injury that occurs in the outdoor environment presents a low (theoretical) risk of contamination with C. tetani spores which are usually found in dirt.

Step 8: What medical follow up is needed?

What Clinical Follow up is required?

Clinical follow-up of tolerance to HIV PEP:
The exposed person taking PEP to prevent HIV should be assessed for possible side effects and treated as necessary. Normally is it useful to review the patient after 3-4 days, at 2 weeks and then again at the completion of treatment.

Clinical follow-up of signs of HIV seroconversion:
Whether PEP is taken or not, in the weeks following an AEB, the exposed person must be monitored for the possible appearance of signs indicating HIV seroconversion: acute fever, generalised lymphadenopathy, cutaneous eruption (rash), pharyngitis, non-specific flu symptoms, ulcers in the mouth or genital area. These symptoms appear in 50-70% of individuals with an HIV primary infection and almost always within 3 to 6 weeks of exposure. When an HIV primary infection is suspected, repatriation or referral should be arranged rapidly.

The exposed person must also be monitored for signs of hepatitis B (if they have not been vaccinated against HBV) or hepatitis C. Transaminase levels (i.e. ALT) can be useful for this.

Psychological support:
An AEB and the prescription of PEP can cause great anxiety for the person concerned. The medical doctor should be careful to give support and care to these people. Repatriation must be mandatory to any expatriate with a seropositive diagnosis following the initial tests on Day 8 or following post-AEB seroconversion. The Staff Health Unit of MSF OCB should be contacted

(staffhealthunit@brussels.msf.org) to organise the medical evacuation and further follow-up.

Adherence Support

Since it can be difficult to complete a full course of PEP, encouragement and support of the exposed person needs to be provided in order to maximise adherence. Helping the person to identify a regular time of day that is easy to remember to take the drugs and giving advice as to how to deal with specific side effects is essential when preparing a patient to start PEP.

For national staff and for international staff still on mission, the medical follow up will be ensured by the Medical Coordinator.
International staff, once out of mission, can address their medical questions to the Staff Health Unit (staffhealthunit@brussels.msf.org).

What Follow Up Blood Tests are required?

It is a medical-legal requirement to perform blood tests within 8 days after the accidental exposure (HIV, HCV and HBV in non-vaccinated people) and again at months 3 and 6.
This is to confirm that any eventual sero-conversion was due to the occupational accident; this is required if a claim for compensation is made. It is essential that the serology monitoring timetable is adhered to.

Table 3: Clinical follow-up and blood testing post-AEB

Timetable	In people taking AEB prophylaxis	In people not taking AEB prophylaxis
Consider before starting PEP To be done within eight days of the AEB*.	HIV, HBV*, HCV Creatinine clearance if on TDF Hemoglobin (Hb) if on AZT ALT Pregnancy test	HIV, HBV*, HCV
Day 15	Clinical follow up of tolerance, and to check for signs of seroconversion Hb if on AZT	

	ALT Creatinine clearance if on TDF	
Month 1	Clinical follow up, including signs of seroconversion Hb if on AZT ALT Creatinine clearance if on TDF HIV	Clinical follow up, including signs of seroconversion HIV
Month 3	HIV, HBV*, HCV ALT	HIV, HBV*, HCV ALT
Month 6	HIV, HBV*, HCV ALT	HIV, HBV*, HCV ALT

*Normally, all expatriates and all national staff at risk are vaccinated against hepatitis B so no serology tests are recommended. If not, or if the person does not know her antibody status post-vaccination, follow the procedure as described above.

The HIV serology test should be done at one month. A negative result can reassure the exposed person but is not a guarantee that seroconversion will not occur later (particularly in people who are taking prophylaxis where seroconversion could be delayed).

If serology cannot be performed locally, coagulated blood can be sent to a referral laboratory, ensuring the cold chain is maintained (4-8°C). Ensure at capital level which laboratory can do each serology test (if several laboratories will be involved take several tubes of blood.)

Reminder: a single positive HIV test cannot be used for diagnostic purposes. It needs to be followed up by a second confirmatory test (a different type of test from the first test). The UNAIDS/WHO guidelines for HIV testing need to be followed.

If there is absolutely no access to the required monitoring tests or where there is significant psychological distress, repatriation may need to be considered. This should be discussed with the staff health unit.

Step 9: What Paper work do I need to complete?

Every AEB of every national or international staff must be notified within 72 hours.

The doctor responsible for staff health in the project should open a personal medical file for the person exposed to ensure clear documentation of the medical follow up. This medical dossier will be kept in the project in a secure way to ensure confidentiality and will be handed over to the exposed person at the end of his / her mission or assignment. Whenever laboratory tests are performed, original papers containing the results should be kept in the medical file with a copy given to the exposed person.

Two notification forms should be filled by the doctor responsible for staff health:

- The PEP treatment refusal / consent form (Appendix 2).
- The AEB notification form (Appendix 3)

Both forms must be read and signed by the exposed person
Further:

- A copy of both forms must be given to the exposed person.
- A scan of both forms must be sent by mail to the Medco and to MSF-OCB Staff Health Unit (SHU) within 72 hours of the incident. The SHU will then inform the administrator in charge of insurance matters.
- The two original forms are sent to the Medco and stored securely to ensure confidentiality.
- International staff will receive the original forms from the Medco at the end of the mission along with his / her complete medical file. For national staff, the original forms will remain at capital level under the responsibility of the Medco.

The exposed person must receive the information sheet on prophylaxis, preventive measures and medical follow-up after an AEB (Annex 1). It is the duty of the doctor responsible for staff health to explain the content and to make sure the exposed person understands fully next steps and additional information.

A victim of an accidental exposure to blood may be declared unable to work for a minimum period of 8 days, starting from the day of the accident and until the next medical consultation.
If so, a medical certificate has to be signed by the doctor responsible for staff health as per the usual procedure in the project. The HRCO should ensure that the administrative follow up (e.g. Insurance, reimbursement of medical care, etc) for the national staff and the international staff still on mission is supported.

Once out of the mission, international staff can address their questions about administrative issues to the OCB's Expatriate Administrator for Insurances & Payroll.

Appendix 1: Information sheet on prophylaxis and follow-up after an AEB

The doctor assessed that there is a risk of transmission of HIV infection as a result of this accident and that you should start post-exposure prophylaxis (PEP) with antiretroviral medication, if you agree.

You must understand that this preventive medication:

- Must be started, as soon as possible and if possible, within 4 hours of the AEB (within 72 hours at the latest);
- Although some failures to post-exposure prophylaxis have been described, a case control study showed that the administration of ART reduces the risk of sero-conversion post-exposure by 79%;
- May cause minor side effects (as with any medication), especially nausea, headache, fatigue, malaise. If you suffer from any of these please consult your doctor. Do not stop the medication.
- Must be taken regularly once per day for four weeks;
- Must be backed up by regular medical check-ups (see below);
- Requires the use of condoms during the period of treatment until the results of the sixth month serology blood tests are known;
- Requires the use of efficient contraceptive measures during the period of treatment until the results of the sixth month serology are known
- Requires your consent

The following is proposed as follow up:

- HIV, HBV and HCV serology before the eighth day, and at the third month and sixth month are required for medico-legal reasons in order for the accident to be considered as an occupational exposure. An HIV confirmation test will be carried out if the result of the test is either positive or indeterminate.

- A liver blood test (ALT) should be checked at day 15, months 1, 3 and 6. Creatinine (if on TDF) or Haemoglobin (if on AZT) should be checked at day 15, and month 1.

Appendix 2: PEP treatment informed consent/refusal form

Surname and first name of the exposed person :.....

Date of birth: ..... Sex: .....

Date of the accident: .....

I, the undersigned, ..., hereby declare :

- That I have been informed of the risk of infection, the preventive measures and the procedure to follow after an accidental exposure to body fluids or blood (AEB)
- That I understand the risk of infection, the preventive measures and the procedure to follow after an AEB
- I was offered (please select accordingly) :
    - prophylactic treatment for HIV (PEP for HIV)
        - I agree to follow this prophylactic treatment for a total period of one month and I agree to accept medical supervision
        - I have been informed of the effectiveness and the possible side-effects of this treatment
        - I have decided not to take it
    - prophylaxis to prevent Hepatitis B
        - I agree to follow this prophylactic booster or rapid vaccination and I accept medical supervision
        - I have been informed of the effectiveness and the possible side-effects of this vaccination
        - I have decided not to take it
    - prophylaxis for any other diseases (please precise):.....
        - I agree to follow this prophylactic treatment and I accept medical supervision
        - I have been informed of the effectiveness and the possible side-effects of this prophylactic treatment
        - I have decided not to take it

Date: ...

Name and signature of the exposed person:

Name and signature of the medical doctor in charge:

Please scan and send to staffhealthunit@brussels.msf.org
Give a copy to the exposed person and
send the original to the medical coordinator, thanks!

Appendix 3: Notification form for an AEB

Date:...../...../....

Country: ..... Project: .....

Surname and first name of exposed person: .....

Date of birth: ..... Age: ..... M / F

Staff: National Regional International Detached HQ visitor Non MSF staff Other:.....

Profile (please underline to precise):

- Doctor: GP – Surgeon - Gyneco – Anesthetist - Other: ...
- Paramedic: Nurse – Midwife – Other: ...
- Cleaner - Laundry Staff – Sterilization Agent
- Lab technician - Watsan – Logistician
- Other: ...

Date of the accident: .....

Exposure to:

- Blood
- Other body fluid containing blood (please precise): .....
- Other body fluid not containing blood (please precise): .....

Type of exposition:

- Needle stick injury
- Cut with soiled instrument
- Splash in the eye(s)
- Splash in the mouth
- Splash on damaged skin
- Splash on plain skin
- Unprotected sexual contact

☐ Other type of exposition: .....

Precise activity when accident occurred:

- IV, IM or SC injection
- Taking samples of blood or other body fluids contaminated with blood
- Handling of blood or infectious body fluids
- Placement of a peripheral venous catheter
- Suturing
- During surgical intervention (e.g. cut, puncture, splash...)
- During obstetrical intervention
- Suction of upper airways (nose, mouth, throat, bronchi)
- Manipulation of soiled linen
- Manipulation of soiled medical or surgical instruments
- Manipulation of waste
- Other: .....

Protective equipment worn by the time of the accident:

- One pair of gloves
- Double pair of gloves
- Mask
- Goggles /glasses
- Apron
- Closed Shoes/Boots

First Aid Measure(s) taken:

- Rinsing with water
- Cleaning with water and soap
- Disinfection with .....
- Other: .....

Was there a third person responsible for the accident Yes No
Describe facts:

Name, first name and address of the person:

Health status of the source patient:

The source patient is identified Yes No

Patient of a high risk group (sex worker, injecting drug user,...) Yes No unknown

HIV high serological prevalence setting > 1%? Yes No

HIV status of source patient is positive negative Date latest HIV test: .....
Unknown

Clinical assessment of the source patient reveals suspicion or presence of HIV infection within the previous six months or more?
Yes No

Hepatitis B serological status of source patient is positive negative unknown
Hepatitis C serological status of source patient is positive negative unknown

Clinical assessment and/or diagnostic tests reveal other relevant transmittable diseases?

Follow up of the exposed person:

<u>Medical status prior to the exposure:</u>

HIV test done prior to assignment Yes No Date latest HIV test: .....
Hep C test done prior to assignment Yes No Date latest Hep C test: .....
Hep B test done prior to assignment Yes No Date latest Hep B test: .....

HBV immune status: Unvaccinated
Previously vaccinated known responder*
Previously vaccinated known non–responder
Previously vaccinated, response unknown responder

*(HBV vaccine responder = HBsAb titre reached > 10IU/ml 4 to 8 weeks after last vaccination dose)

Other relevant medical information (e.g. pregnancy, relevant chronic diseases, drugs,...):

<u>Post exposure prophylaxis:</u>

HIV post exposure prophylaxis (HIV PEP): Advised Yes No
Prescribed Yes No
Accepted by exposed person Yes No

Type of HIV PEP prescribed: drug .....-.....mg.....times/day

drug .....-.....mg.....times/day

drug .....-.....mg.....times/day

Time elapsed between the accident and the beginning of HIV PEP
< 4h between 4 and 24h between 24 and 48h longer (specify): .....

Vaccination(s) given (what – when) e.g. HBV – Tetanus :

…… ……

Immunoglobulin given (what –when):

……

Others: ……
Lab tests prescription: (what? when?)

PEx= Post-Exposure
● : for sure to be prescribed
○ : color if relevant to be prescribed (see table p.18 of the guideline)

When lab test are performed, please fill in the table the exact date

	< 8 days PEx	15 days PEx	month 1 PEx	month 3 PEx	month 6 PEx
HIV	●		●	●	●
HBV	○		○	○	○
HCV	●		○	●	●
Creatinine Clearance if on TDF	○	○	○		
Hemoglobin if on AZT	○	○	○		
ALT	●	○	○	●	●
Pregnancy test	○				
Others:					

Original papers with results should be kept in the medical record. A copy of the results has to be made and given to the exposed person.

Whenever tests turns out to be positive for HIV, HBV or HCV:
For international staff, please contact MSFOCB Staff Health Unit
For national staff, please contact the Medical Coordinator for further follow up according to national policies.

Work interruption?
Yes No If yes, number of days?

Medical evacuation?
Yes No If yes, where?

Information:
The exposed person
- ☐ Received the information sheet on prophylaxis and follow-up after an AEB (annex 1)
- ☐ Signed the PEP treatment consent /refusal form (annex 2)

Any other comment:

Date: …… Place: ……

Name of doctor in capital letters:

Signature of doctor:

Please scan and send to staffhealthunit@brussels.msf.org
Give a copy to the exposed person and send the original to the medical coordinator, thanks!