	THE UNIVERSITY OF CAPE TOWN POST EXPOSURE PROPHYLAXIS PROCEDURE & ADDENDUM	1SSUE NO: 05 Revision No: 06 Nov 2016 Prev update: Nov 2012 DOC. NO: UCTPEP005

Updated by: **Dr Amy Burdzik & Sister Suzanne Key, UCT OH Unit**	**Approved by: Mr. Andre Theys** **Exec. Dir. Property & Services UCT.** **Sign:**	**Approved by Medical Superintendent** **Groote Schuur Hospital.** **Sign:**

MANAGEMENT AND TREATMENT OF UCT STAFF AND STUDENTS ACCIDENTALLY EXPOSED TO BLOOD OR BODY FLUIDS

1. DEFINITIONS

1.1 Accidental Exposure includes:

1.1.1 Needle-stick injuries.

1.1.2 Injury with other sharp object, e.g. scalpel blade, lancet, suture needle, broken glass.

1.1.3 Splash of blood or body fluids onto mucous membrane of eyes, mouth or nose.

1.1.4 Exposure of non-intact skin to blood or body fluids.

1.2 Source Person: A person whose blood or potentially infectious material has come into contact with a staff member or student by splashing onto mucous membranes or onto broken skin or by accidental percutaneous injury. If the source person is unknown, the term "source person unknown" shall be used.

1.3 Potentially infectious material includes blood, any blood-stained fluid, tissue or material. Tissue fluids (any fluid from a body cavity, includes ascites, embryonic liquor, CSF, pleural or pericardial fluid and would secretions), or sexual fluids and vaginal secretions, penile pre-ejaculate and semen).

1.4 Immediate Care Area: The area where the emergency management of the exposed staff member or student is carried out.

1.5 HIV Post-exposure prophylaxis (PEP): Antiretroviral therapy given to the recipient of a percutaneous or mucocutaneous exposure with potentially infectious material that could lead to the transmission of HIV, Hepatitis B and Hepatitis C.

2. INTRODUCTION

2.1 In the event of an accidental exposure to blood or body fluids, the staff member or student concerned must report the matter immediately to the most senior person in the area. The incident must then be recorded and immediately reported telephonically to the Immediate Care Area.

For UCT staff members, the incident must also be reported to the UCT Occupational Health Unit (OHU). (All exposure incidents must be investigated by the UCT OHN in the first instance and not by the Safety Health and Environment (SHE) representatives, owing to the confidentiality required in these potentially sensitive incidents.) For UCT students, the incident must be reported to the UCT Faculty of Health Sciences' Student Development and Support Service in the Undergraduate Administration Office.

2.2 During normal working hours, the GSH Occupational Health Clinic (OHC) will function as the immediate care area and after hours and on public holidays, the Trauma Unit (C14) will take over this function. When students or staff are at other facilities (e.g. Secondary hospitals, Community Health Centres, MOUs), immediate care will usually take place at that facility and follow-up will be done at GSH OHC. (See Section 8 for contact details of emergency care areas at various facilities)

2.3 For GSH Occupational Health Clinic visits please ensure that the staff member or student is in possession of their medical folder obtained from Medical Records in the OPD Central Reception (E floor).

2.4 The hours of service of the GSH OHC are Monday to Friday: 07h30 – 15H30.

2.5 The GSH OHC will also attend to further counselling, documentation and follow up care. If Hepatitis B immunisation is required for a UCT staff member, this will be done by the UCT OH Unit.

2.6 A Percutaneous Inoculation Report (PIR) must be completed at the GSH OHC in the event of accidental exposure to blood or body fluids.

2.7 A stock of anti-retroviral medication (currently Truvada (Tenofovir 300mg + Emtricitabine 200 mg), Atazanavir and Ritonavir) will be kept locked in a separate medicine cupboard in the following high-risk locations at GSH for immediate use post-exposure:

- Trauma Unit, C14 GSH
- Operating Theatres: D16 Theatre GSH
- Maternity Block: Labour ward GSH
- Occupational Health Clinic, J-floor, OPD GSH
- OPD Pharmacy, E floor GSH

3. PROCEDURE

3.1 RESPONSIBILITY OF THE EXPOSED STAFF MEMBER OR STUDENT AND PERSON IN CHARGE:

Clinical/Non-clinical areas	Operating Theatres (OT) (Scrubbed persons)
Encourage bleeding if possible. Do not suck or "milk" the wound. • Wash the exposed site thoroughly with running water and soap, and rinse. • Eye and mucocutaneous exposure: Irrigate with water or normal saline • Inform person in charge • Person in charge will: - Confirm that washing/irrigation was done. - Inform Immediate Care Area telephonically and if UCT staff member, inform UCT OH Unit. - Send injured/exposed staff member or student with 1 specimen clotted blood from source person, labelled with all the source person's information, to the Immediate Care Area.	Remove the punctured glove. Encourage bleeding if possible. Do not suck or "milk" the wound. • Wash the exposed site thoroughly with running water and soap and then rinse. • Re-glove. • Eye and mucocutaneous exposure: Irrigate with water or normal saline. • Inform person in charge of OT who will: - Dispense ARV PEP (See Addendum) - Inform Immediate Care Area telephonically. - Send exposed staff member or student with 1 specimen clotted blood from source person, labelled and with all source person's information to Immediate Care Area, immediately after the operation.

3.2 RESPONSIBILITY OF THE DOCTOR IN CHARGE OF THE SOURCE PERSON:

3.2.1. If the injured or exposed staff member or student is the doctor-in-charge of the source person, this task should fall to a colleague or more senior member of staff (i.e. the injured person should not have to explain and take blood from the source person).

3.2.2. After explaining the need for testing and obtaining informed consent form the source person, a blood specimen must be drawn into one yellow top tube.

3.2.3. *If it is not possible for any reason to obtain consent for testing, treat the source person as HIV UNKNOWN.*

3.2.4. The blood specimen labelled with the source person's full name, surname and folder number must be given to the injured or exposed staff member or student to take to the Immediate Care area without delay.

4. RESPONSIBILITY OF THE DOCTOR IN THE IMMEDIATE CARE AREA:

4.1 The doctor must confirm that the wound was adequately cleaned with soap and water or that the mouth/eyes were irrigated with water/saline.

4.2 The GSH OHC/Trauma Unit C14 doctor will counsel the injured or exposed staff member or student. Following counselling, they will ensure that blood is drawn from the staff member or student and will confirm that the source person's blood is available. They will also check that the emergency ARV PEP has appropriately been offered to the student or staff member.

4.3 THE GSH OHC doctor will confirm that the PIR has been correctly completed. The blood specimens are then dealt with in terms of the Clinical Protocol for Exposure to blood or body fluids.

4.4 If the injury drew blood or is an obviously high risk inoculation or contamination of an open wound by blood or body fluids, then the following steps must be taken:

4.3.1. Obtain the source person's HIV serology test result. Refer to addendum.

4.3.2. If the source person is HIV Negative, antiretroviral PEP is not indicated. Refer to Addendum.

4.3.3. If the source person is HIV Positive or remains HIV Unknown, offer antiretroviral (ARV) PEP to the recipient for 28 days uninterrupted. Refer to Addendum.

4.3.4. The doctor prescribing ARV PEP must inform the staff member or student of known side effects of the drugs and counsel the staff member or student to report any side effects to the GSH OHC or Trauma Unit C14 (after hours).

4.3.5. If the staff member or student was seen in the Trauma Unit, refer him/her to the GSH OHC on the next working day for further management along with the same folder used in Trauma Unit. Trauma Unit must ensure that when indicated, the staff member or student has an adequate supply of ARV PEP over weekends and public holidays.

5. RESPONSIBILITIES OF THE GSH OCCUPATIONAL HEALTH CLINIC:

5.1 In the case of a known HIV infected source person or where the HIV status is unknown:

5.1.1. Counsel the staff member or student as required.

5.1.2 After obtaining consent, do a baseline HIV serology, Hep B surface antibody titre, Hep C antibody (if the source person is known to be HCV-infected or unknown/not able to test) and Creatinine, if the staff member or student needs ARV PEP for 28 days.

5.1.3 Offer ARV PEP only if the staff member presents within 72 hours of exposure.

5.2 When the HIV status of the source person becomes known, continue with counselling and treatment according to clinical protocol.(See Addendum)

5.3 If the source person is Hepatitis B surface antigen positive and the staff member or student has a Hepatitis B surface antibody titre less than 10 mIU/ml, then the staff member or student must be offered a Hepatitis B immunoglobulin injection and a booster Hepatitis B dose or full vaccination course, as required.

5.4 The GSH OHC will provide follow-up to manage side effects and to encourage completion of 28 days of PEP and to complete serological tests to determine whether transmission of HIV has occurred.

5.5 ARV PEP commonly causes nausea and diarrhoea, so staff members and students should have access to metoclopramide and loperamide, if required, for the duration of the PEP treatment.

6. RESPONSIBILITIES OF THE VIROLOGY LABORATORY AT GSH

6.1 The Virology Laboratory will telephonically report the results, as soon as they are available, to:

6.1.1 The requesting doctor in charge of the source person.

6.1.2 The GSH OHC doctor attending to the staff member.

6.2 The Virology lab will send a printed copy of the definitive results to the GSH OHC as soon as possible.

7. RESPONSIBILITIES OF THE UCT OCCUPATIONAL HEALTH NURSE

7.1 If the UCT OHN is notified at the time of the incident, the UCT OHN will report the exposure incident to the GSH OHC clinic as soon as possible and notify them that the student/staff member will be coming through for management and treatment.

7.2 Conduct the incident investigation.

7.3 Report statistics on incidents involving both staff and students at the Faculty of Health Sciences Health & Safety Committee quarterly meetings in a confidential manner.

7.4 Inform the Head of Department (HOD) of the outcome for each involved exposed person. This shall be done in writing using the Dept. of Labour, WCL. 306 Annexure A document. The HOD must sign

this document and return it to the UCT OHN, who will forward the forms to the Compensation Commissioner.

8. RELEVANT PHONE NUMBERS

- Groote Schuur Hospital Occupational Health Clinic (J-floor OPD) 021 404 5490
  021 404 5081/5486
- GSH Trauma Unit C14 021 404 4112 / 4473
- Mowbray Maternity Hospital Occupational Health Nurse Practitioner 021 659 5586
- New Somerset Hospital Occupational Health Nurse Practitioner 021 402 6485 / 6410
- Red Cross Hospital(RXH) Occupational Health Nurse Practitioner 021 658 5410 / 5605
- UCT Occupational Health Nurse Practitioner 021 650 3873/2021
- UCT Student Wellness Centre 021 650 1020
  UCT Safety, Health and Environment Manager 021 650 3552
- UCT Faculty of Health Sciences Student Development & Support committee 021 406 6749
- Victoria Hospital Occupational Health Nurse Practitioner 021 799 1141

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ADDENDUM A: POST EXPOSURE PROPHYLAXIS PROCEDURE FLOW CHART:

Management and Treatment of UCT Staff and Students Accidentally Exposed to Blood or Body fluids.

Accidental Exposure: UCT Staff member/ Student
- Needle-stick injuries.
- Injury with other sharp object, e.g. scalpel blade.
- Splash of blood or body fluids onto mucous membrane of eyes, mouth or nose.
- Exposure of non-intact skin to blood or body fluids.

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Immediate Action:
- Encourage bleeding, if possible. Do not suck or "milk" the wound.
- Wash the exposed site thoroughly with running water and soap, then rinse.
- Eye and mucocutaneous exposure: Irrigate with water or normal saline

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Duty of Exposed Person:
- Immediately inform your Supervisor or the Senior Person in charge.
- Supervisor or person in charge to obtain: 1 specimen clotted blood in yellow gel top tube from the source person & send it with exposed student/staff member to immediate care area,
- Report to the Immediate Care Area for prophylactic treatment.
- Exposed person should report to the GSH OHC or to Trauma Unit on the same day. Students must report the incident to the UCT Faculty of Health Sciences Student Development & Support service 021 406 6749

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Immediate Care Areas:
- GSH: Staff Health Clinic, J Floor OPD (07H00-16H00): 021-4045490/5486
- GSH: Trauma Unit C14, New GSH Hospital (Weekends and After hours) 021 404 4112 / 4473
- Community Health Centres: Doctor or Sister in charge
- Mowbray Maternity Hospital: Occupational Health Nurse Practitioner 021 6595586 or GSH
- MOUs: Doctor or Sister in charge
- Red Cross Hospital: Occupational Health Nurse Practitioner or casualty 021 658 5410/5605
- New Somerset Hospital: Occupational Health Nurse Practitioner or casualty 021 402 6485/6410
- Victoria Hospital: Occupational Health Nurse Practitioner or casualty 021 799 1141

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During Working Hours:
07h00 – 15h30
Proceed directly to GSH Occupational Health Clinic.

021-4045490/5081

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After Hours:

Report to Trauma Unit and GSH Staff Health Clinic the next working day.
021-4045490/5486

ADDENDUM B: CLINICAL PROTOCOL FOR EXPOSURE TO BODY FLUIDS (A GUIDELINE FOR TRAUMA UNIT DOCTORS AND NURSES)

1. LABORATORY INVESTIGATIONS:

Table 1.1 INVESTIGATIONS FOR THE SOURCE PATIENT (X1 yellow top)

Investigation requested	Investigation ticked on NHLS form
RAPID HIV (after-hours/weekends/public holidays)	Indicate under clinical: Needle stick injury source patient AND Urgent Indicate under other tests: RAPID HIV
HIV Antibody/P24 Antigen * (will be done next working day)	HIV testing: HIV Serology
Hepatitis B Surface Antigen	Hepatitis Serology: Clinical Hepatitis B
Hepatitis C Antibody	Hepatitis Serology: Clinical Hepatitis C

Table 1.2 INVESTIGATIONS FOR THE HEALTH CARE WORKER (x2 yellow tops)

Test	Investigation ticked on NHLS form
HIV Antibody/P24 Antigen	HIV testing: HIV serology
Hepatitis B Surface Antibody	Hepatitis Serology: Hepatitis immunity: B
Hepatitis C Antibody *(only if the source patient is Hep C positive or unknown)*	Hepatitis Serology: Clinical Hepatitis : C

DO NOT wait for the laboratory results to commence PEP as per Western Cape DOH Circular H77/2014

DO NOT withhold or stop PEP based on negative RAPID HIV test result only.

IF THE SOURCE PATIENT HAS A NEGATIVE RAPID HIV TEST:

- It is advisable to await the confirmatory HIV Combo test *result before deciding to stop PEP.
- The treating Clinician must inform the HCW if it is suspected that the source patient may pose a risk (e.g. if there is a possibility of sero-conversion illness) if the HCW decides to stop PEP.

2. TREATMENT REGIME:

Treatment options for HIV change over time. The medications listed in this addendum are in line with current provincial Department of Health policy recommendations, but are likely to change in future. Raltegravir or Dolutegravir will be used in place of Atazanavir/Ritonavir in the near future but, at present, these medications require special motivation to be obtained at Groote Schuur Hospital. Please check with the GSH Occupational Health clinic to confirm what the preferred treatment is at the time of the injury.

2.1 IN THE ABSENCE OF ANY CONTRAINDICATIONS

TYPE OF EXPOSURE	TREATMENT
Muco-cutaneous exposure OR Pecutaneous exposure	TRUVADA one tablet once daily orally +ATAZANAVIR 300 mg once daily orally +RITONAVIR 100 mg once daily orally

TRUVADA = Tenofovir (TDF) 300 mg + Emtricitabine (FTC) 200mg

NB: The above medication must be available in Trauma Unit (supplied pre-packed from E10 pharmacy). INFORM HCW of Raltegravir option available in private in place of Atazanavir and Ritonavir.

2.2 IN THE PRESENCE OF ANY CONTRAINDICATIONS

Other ARV PEP options ****MUST be discussed with an ID Specialist

2 – Drug (NRTI ***)	PLUS	3 RD Drug **
Tenofovir (TDF) 300mg + Lamivudine (3TC) 300 mg OD po	PLUS	ATAZANAVIR 300mg once daily orally + RITONAVIR 100 mg once daily orally
Stavudine (d4T) 30 mg + lamivudine (3TC) 150 mg BD po	PLUS	ATAZANAVIR 300MG once daily orally + RITONAVIR 100 mg once daily orally
Zidovudine (AZT) 300mg + Lamivudine (3TC) 150 mg BD po	PLUS	ATAZANAVIR 300 mg once daily orally + RITONAVIR 100 mg once daily orally
Tenofovir (TDF) 300 mg + Emtricitabine (FTC) 200 mg OD po	PLUS	ALUVIA (400 mg/100mg) po BD OR Raltegravir * 400mg po BD

Notes:

* In instances of unavailability of or intolerance to or contraindication to Atazanavir/Ritonavir and Alluvia, use Raltegravir.

** Never recommended: Nevirapine due to risk of, among other, hepatotoxicity.

*** Avoid: Abacavir due to risk of hypersensitivity reactions.

**** If the source patient is known HIV positive and failing ARV treatment, then consult the ID

Specialist on call to discuss an appropriate PEP regimen.

3. Counselling of the healthcare worker must be rendered. Specific counselling regarding use of condoms during the period of follow-up is important due to the potential risk of transmission in the event of sero-conversion.
4. The health care worker must report any side effect of PEP to the OHC/Trauma Unit (after hours).
5. Refer the health care worker to the GSH Occupational Health clinic during normal working hours (J-floor, OPD).

GSH Occupational Health Clinic
J-Floor OPD
Clinic contact numbers (021 404 5490/5486)