North Carolina Department Of Correction
Division Of Prisons

SECTION: Personnel

POLICY # P II-2

SUBJECT: Injuries to Staff

EFFECTIVE DATE: July 2011
SUPERCEDES DATE: March 2009

References

Related ACA Standard **4th Edition Standards for Adult Correctional Institutions 4-4420**

PURPOSE

To provide guidelines for employees injured on duty and possibly exposed to a blood borne pathogen.

POLICY

The North Carolina Department of Correction is self-insured for the purpose of administering the Worker's Compensation Act. The Compensation Office and the Department of Correction Personnel Office are authorized to accept or deny liability and to settle all Worker's Compensation claims against the department.

All employees of the Department of Correction are covered by the Worker's Compensation Act if injured by accident arising out of and in the course of employment. Additional information pertaining to Worker's Compensation for Employees is contained in the State Personnel Manual.

PROCEDURE

When an employee believes there has been a job related injury, the employee shall report the incident immediately to their immediate supervisor or Officer in Charge (OIC).

A. Employee Exposure To Blood Borne Pathogen

When there has been a job related exposure to blood or body fluids that poses a risk of transmission of a blood borne illness, it should be reported immediately to the employee's supervisor or the Officer in Charge (OIC). If medical staff are readily available, the employee should be examined by the staff to advise whether or not an occupational exposure has occurred. In the absence of medical staff, the OIC or supervisor may confer with the employee to determine if potentially infectious body fluids contacted mucous membranes of the mouth or eyes or broken skin. If the conferring staff and the employee agree that an occupational exposure has not occurred, there is no need for further evaluation. If the employee or the staff feel strongly that an occupational exposure may have occurred, the employee should secure an **"**Occupational Exposure Incident Pack" (this packet should include the Corvel DOC WC Authorization/Physician's Report/Pharmacy Guide Sheet) and be immediately sent to the closest major hospital emergency department and/or the closest approved Comp Care Facility. For assistance staff may call the POST EXPOSURE PROPHYLAXIS HOTLINE 1-888-488-4911. If the examining physician determines that an occupational exposure has occurred, the contents of the Occupational Exposure Incident Pack should be completed in its entirety.

When an occupational exposure to a potentially infectious blood borne pathogen has occurred, the source of the potentially infectious body fluid will be tested for HIV, Hepatitis B, Hepatitis C and syphilis. As outlined in the NC Communicable Disease Rules (10A NCAC Chapter 41, Subchapter 41A .0202, .0203), the results of these tests will be made available to the physician treating the potentially exposed employee.

B. Unit Nurse Supervisor or OIC (if medical staff is not available) should call ahead to the Emergency Department or Comp Care Facility and inform the Charge Nurse/Supervisor that a potential Blood Borne Pathogen has occurred. The employee is being referred to your facility for evaluation and treatment. If it is determined that Post Exposure Prophylaxis (PEP) is needed, the emergency department or Comp Care Facility will supply the employee with a 3 day supply, if possible, to allow time for their pharmacy to obtain additional medication.

C. After initiating appropriate medical management, the following forms must be completed for all employee injuries/exposures:
   1. DOC-WC-4 - "Employee's Initial Report of Injury"
   2. Form 19 - "Employer's Report of Injury to Employee"

D. The OIC is responsible for reporting all Bloodborne pathogen exposures to the facility personnel office by the next business day. All exposure incidents shall be reported on the facility "Sharps Injury Log".

7/14/11

SOR: Standards Director
Infection Control Coordinator

Paula Y. Smith, MD, Director of Health Services Date

EXPOSURE INCIDENT PACK

PACKAGE CONTENTS

Supervisor/Employee:

Read the following and determine if an Occupational Exposure has occurred before initiating this package.

Occupational Exposure: An exposure that might place a Health Care Professional (HCP) at risk for HBV, HCV or HIV infection is defined as a percutaneous injury (e.g., a needlestick or cut with a sharp object) or contact of mucous membrane (eyes, mouth) or nonintact skin (e.g., exposed skin that is chapped, abraded, or afflicted with dermatitis) with blood, tissue, or other body fluids that are potentially infectious. In addition to blood and body fluids containing visible blood, semen and vaginal secretions also are considered potentially infectious. Although semen and vaginal secretions have been implicated in the sexual transmission of HBV, HCV, and HIV, they have not been implicated in occupational transmission from patients to HCP. The following fluids also are considered potentially infectious: cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, and amniotic fluid. The risk for transmission of HBV, HCV, and HIV infection from these fluids is unknown; the potential risk to HCP from occupational exposures has not been assessed by epidemiologic studies in health-care settings. Feces, nasal secretions, saliva, sputum, sweat, tears, urine, and vomitus are not considered potentially infectious unless they contain blood. The risk for transmission of HBV, HCV, and HIV infection from these fluids and materials is extremely low. Any direct contact (i.e., contact without barrier protection) to concentrated virus in a research laboratory or production facility is considered an exposure that requires clinical evaluation. For human bites, the clinical evaluation must include the possibility that both the person bitten and the person who inflicted the bite were exposed to bloodborne pathogens. Transmission of HBV or HIV infection only rarely has been reported by this route (CDC June 29, 2001).

PHYSICIAN INSTRUCTIONS

This North Carolina Department of Correction employee has possibly had an exposure to a blood-borne pathogen. Please read page 1 to see if an exposure has occurred. If there has been no exposure, you do not need to continue with this package.

If a blood-borne exposure may have occurred, please complete the enclosed forms.

Be sure to sign pages 4, 5, 6, 8, 10, and 12.
Mark envelope "CONFIDENTIAL" and Return all original forms to the:

(Sending Correctional Facility)
Attention: Personnel Department
_____(Address)
_____
_____(City, State, Zip)

The employee is being referred to your facility for evaluation and treatment. If it is determined that PEP is needed, if possible, please supply employee with a 3 day supply to allow time for their pharmacy to obtain additional medication. Instruct employee that they should go directly to their local pharmacy to order the remainder of the supply of PEP medication. The employee should take the **Corvel DOC WC Authorization/Physician's Report/Pharmacy Guide Sheet** directly to the workman's comp pharmacy.

To identify the closest workman's comp pharmacy the employee may access the **Corvel** website. The search is based on the person's zip code. To access the website, go to:

- www.Corvel.com
- click on Provider look up
- Go to Find a provider and enter "Search"
- Under select a Network scroll to CorCare RX
- enter zip code and search

NORTH CAROLINA DIVISION OF PRISONS
Occupational Exposure Incident

Introduction to Department of Correction Employees

An occupational exposure incident" refers to any incident whereby the exposed person's eyes, mouth or broken skin is brought into contact with fluids directly linked with the transmission of Hepatitis B, C, and/or HIV. Those fluids are: blood, blood products, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, and amniotic fluid.

Feces, nasal secretions, saliva, sputum, sweat, tears, urine and vomitus are not considered potentially infectious unless they contain blood. (CDC, 2001).

Consultations

Clinicians who have questions pertaining to post-exposure incidents are referred to the **National Clinician Post-exposure Prophylaxis Hotline 1-888-448-4911** which is available 24 hours a day for consultation.

Needle stick (website for clinicians to manage and document occupational exposures)
http://www.needlestick.mednet.ucla.edu

Hepatitis Hotline **(888)-443-7232** **http://www.cdc.gov/hepatitis**

Occupational Exposure Incident

Provider Check List

An "occupational exposure" refers to any incident whereby the exposed person's eyes, mouth, or non-intact skin is brought into contact with fluids potentially linked with the transmission of Hepatitis B, C, and/or HIV. Those fluids are: blood, blood products, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, and amniotic fluid. Feces, nasal secretions, saliva, sputum, sweat, tears, urine and vomitus are not considered potentially infectious unless they contain blood.

Please remember, an occupational exposure involving a high-risk patient can create severe anxiety in the exposed employee. A reassuring attitude is an essential component of care. It is often helpful to remind the exposed person of the best estimate of the rate of seroconversion for individuals:

HBV- Healthcare personnel who received hepatitis B vaccines and developed immunity to the virus are at virtually no risk for infection. For susceptible person, the risk from a single needle stick or cut exposure to HBV infected blood ranges from 6-30%. While there is a risk for HBV infection from exposures of mucous membranes or normal skin, there is no known risk for HBV from exposure to intact skin.

HCV- The average risk for infection after a needle stick or cut exposure to HCV infected blood is approximately 1.8%.

HIV- The average risk of HIV infection after a needle stick or cut exposure to HIV infected blood is 0.3% (3 in 1000); the risk after exposure of the eye, nose or mouth is 0.1% (1 in 1000); and the risk after exposure of non-intact skin is estimated to be less than 0.1%.

To summarize, the following should take place as soon as possible when faced with an incident of an occupational exposure.

[ ] 1. Confirm with the employee that they will report the injury to personnel. It is the responsibility of the employee to report the injury by the next business day.

[ ] 2. Confirm with the employee that the source (patient) has been identified and the prison medical staff will be notified by your office to initiate testing for HIV, HBsAG, HCV Antibody, and STS.

[ ] 3. The exposed employee must complete the exposure risk history on the Occupational Exposure Flow sheet (Page 6).

[ ] 4. Review carefully, with the exposed person, the information given as history.

[ ] 5. Complete the physical exam, review treatment recommendations and plan treatment with the employee's involvement. It is important to remember that the individual has the right to refuse any phase of recommended treatment, but this must be carefully documented.

[ ] 6. Treating physician and employee complete Page 6,7,9 and 13 .

[ ] 7. Emphasize to the employee what follow-up is recommended and that it is his/her responsibility to follow through with recommendations.

[ ] 8. If combination antiretroviral therapy is indicated, if possible, please provide a 3-days supply from the emergency department or Comp Care Facility with instructions and send them to the local pharmacy with a prescription for the remaining medication. If the emergency department or Comp Care Facility is unable to provide a 3-days supply, please give the employee a prescription for a 3-days supply of the medications, in addition to a prescription for the 4 week supply. (The prescription for a 3-days supply will be needed for the NC DOC pharmacy, **if** the local pharmacy does not stock the prescribed medications).

M.D. Signature: _____ Date:

Employee Signature: _____ Date:

Occupational Exposure Flow Sheet

TO BE COMPLETED BY EXPOSED EMPLOYEE

Employee Name _____ Date
Position _____ Facility Name
Date of exposure _____ Time of exposure
Description of exposure:

SOURCE HISTORY

Description of source (patient):

Diagnosis
Known (X if known):

____ Same sex partner
____ IV drug user
____ HIV positive
_____Hepatitis B positive
_____Hepatitis C positive
_____Other
____ Multiple sexual partners
____ Previous blood transfusions
____ Previous occupational exposure

EMPLOYEE HISTORY

Has treatment been initiated at another facility? ____ Yes ____ No
Nature of treatment:

Please answer as honestly as you can whether you have the following personal risk factors?

Pregnant	____ Yes	____ No	____ LMP (Date)
Previous blood transfusion	____ Yes	____ No	____ Date
Previous occup. Exposure	____ Yes	____ No	____ Date
Multiple sex partners	____ Yes	____ No	
Same sex partner	____ Yes	____ No	
IV drug user	____ Yes	____ No	
Known HIV +	____ Yes	____ No	
Previous Hep. Infection	____ Yes	____ Type	____ No
Current medications	____ Yes	____ No If yes, list:	

Previous immunizations:

Hepatitis B vaccine (series of 3)	____ Yes	____ Date	____ No
Serologic confirmation of immunity	____ Yes	____ Date	____ No
Tetanus vaccine	____ Yes	____ Date	____ No

Employee Signature _____

Reviewed by Provider _____

PHYSICAL EXAM

TO BE COMPLETED BY EXAMINER

PHYSICAL EXAM:

1. Exposure Site

2. Lymphatic Exam

3. Abdominal Exam

   Liver

   Spleen

4. Oral Cavity

   Ulcerations

   Candidiasis

LAB:	Date	Results
HBsAg	_____	
Anti-HBs	_____	
Anti-HCs	_____	
HIV	_____	
STS	_____	
CBC (if antiretroviral(s) given)	_____	
Chem 12 (if antiretroviral(s) given)	_____	
U/A (if antiretroviral(s) given)	_____	

TREATMENT:

See treatment plan (Page 8) and complete if medications are prescribed.

Provider Signature _____ Date

TREATMENT PROTOCOLS

Consult the following 3 protocols for suggested treatment options for HIV, Hepatitis B, and Hepatitis C.

PROTOCOL 1

Treatment of HIV Exposure

1. Provide appropriate counseling.
2. HIV prophylaxis

PROTOCOL 2

Treatment of Hepatitis B Exposure

TABLE 5. Recommendations for hepatitis B prophylaxis following percutaneous or mucosal exposure.

TREATMENT WHEN SOURCE IS FOUND TO BE:

		HBsAg positive	HBsAg negative	Source not tested or unknown (treat as if HBsAg positive)
Exposed Employee	Previously vaccinated known responder	No treatment	No treatment	No treatment
	HBV vaccinated, non-responder	HBIG x 1 and revaccinate	No treatment	HBIG x 1 and revaccinate
	Not HBV vaccinated	HBIG x 1 and HB vaccine series	Initiate HB vaccine series	HBIG x 1 and HB vaccine series
	Response unknown	Test exposed for anti-HBs 1. If inadequate, + HBIG X 1 plus HB vaccine booster dose 2. If adequate, no treatment	No treatment	Test exposed for anti-HBs 1. If inadequate, + HBIG X 1 plus HB vaccine booster dose. 2. If adequate, no treatment

*HBIG dose 0.06 ml/kg IM
+Adequate anti-HBs is > 10 SRU by RIA or positive by EIA

PROTOCOL 3

Treatment of Hepatitis C Exposure

At this time no effective prophylaxis regimen is available.

TREATMENT PLAN

Medication:	Dose	Date	Consent Form
Td	_____	_____	
HBIG	_____	_____	
Hep B vac	_____	_____	
Combivir (Zidovidine, ZDV/ Lamivudine: 3TC)	_____	_____	
Viracept (Nelfinavir)or	_____	_____	
Crixivan (Indinavir)	_____	_____	
Antibiotic	_____	_____	

Counseling:

Date when discussed: _____

_____ Report any febrile illness within 12 weeks post-exposure

_____ Post-exposure prophylaxis

_____ Importance of follow-up

_____ Reinforce universal precautions and use of personal protective equipment

Follow-up:

	2 wk.	4 wk.	6 wk.	3 mos.	6 mos.
All injuries	-0-	-0-	HIV	HIV, STS	*AntiHBs HIV
Injuries treated with Antiretroviral therapy	CBC SMA 19 U/A	CBC SMA 19	HIV	HIV, STS	*AntiHBs HIV

*If given Hep B vaccine

Employee agrees to the following plan for follow-up:

Return to office

Plan

Provider signature_____ Date

Employee Signature_____ Date

POST EXPOSURE PROPHYLAXIS (PEP) FOR THE EMPLOYEE OCCUPATIONALLY EXPOSED TO HIV: FACT SHEET

Employees who are exposed to HIV (the AIDS virus) risk infection. The risk from a needle stick injury involving HIV infected blood is approximately 0.3% (3 in 1000), but may be higher or lower depending on the severity of the injury. The risk from exposures involving mucous membranes or non-intact skin is believed to be lower than the risk from a needle stick, but it is not zero.

At the present time, triple combination antiretroviral therapy is the **recommended** standard of care for post exposure prophylaxis. The antiretroviral drugs which are suggested for PEP are Combivir (Zidovidine; ZDV/Lamivudine; 3TC) and Viracept (Nelfinavir) or Crixivan (Indinavir). These drugs are approved by the Food and Drug Administration for treatment of patients with HIV infection. However, they are not approved for use as a post exposure prevention regimen in employees. Consequently, WRITTEN INFORMED CONSENT PRIOR TO SUCH THERAPY IS REQUIRED.

Although very rare, life threatening or serious irreversible toxicities from the aforementioned combination therapy can occur. Serious reversible toxicities (detailed in the attached consent form) have been observed in a small percentage of persons in the first six weeks of treatment. The optimal dose and duration of PEP treatment is not known. Individual variations in drug tolerance are expected. CAREFUL MEDICAL MONITORING, SUPERVISED BY A TRAINED CLINICIAN DURING ANTIRETROVIRAL THERAPY IS, THEREFORE, MANDATORY.

The effect of combination antiretroviral therapy on unborn children is unknown because harmful effects to the fetus might occur. MEN OR WOMEN ENGAGING IN SEXUAL PRACTICES SHOULD TAKE PRECAUTIONS TO AVOID PREGNANCY FOR AT LEAST FOUR WEEKS AFTER TREATMENT. Sexual activity without barrier contraception, i.e. condoms or barrier dams, is not recommended until an HIV negative status is documented six (6) months after the exposure date.

Consent to Take an Approved Drug(s) for a Non-Approved Indication

COMBIVIR (ZIDOVIDINE; ZDV/ LAMIVUDINE; 3TC) and VIRACEPT (NELFINAVIR) or Crixivan (INDINAVIR) FOR PREVENTION OF HIV INFECTION AFTER OCCUPATIONAL EXPOSURE TO HIV

I may have been exposed to HIV (Human Immunodeficiency Virus), the virus which causes AIDS, in my workplace. My clinician has offered me the treatment options of combination therapy. Combination therapy consists of Combivir (Zidovudine; ZDV/Lamivudine; 3TC) and Viracept (Nelfinavir) or Crixivan (Indinavir).. Although these drugs are indicated for treatment of established HIV infection, they are not approved by the Food and Drug Administration (FDA) for preventing infection after exposure.

IF I DECIDE TO TAKE A POSTEXPOSURE PROPHYLAXIS REGIMEN THE FOLLOWING WILL OCCUR:

1. My blood will be drawn and tested for routine chemistries as well as HIV.
2. A urine sample will be obtained to screen for kidney stones.
3. A urine sample will be obtained to determine if I am pregnant (women only).
4. I will be given a prescription for combination therapy. The instructions will be as follows:
   a. Combivir (Zidovudine 300 mg/Lamivudine 150 mg) one tablet by mouth every twelve hours with or without food
   b. Viracept (Nelfinavir) 250 mg five tablets by mouth every twelve hours with food
   c. **or** Crixivan 400 mg capsules two capsules po Q8H on an empty stomach with water
5. I will be required to return to my clinician in 2 weeks, 4 weeks, 6 weeks, 3 months, and 6 months. Urine and/or blood tests may be performed on each visit.
6. If I experience adverse reactions or develop abnormal laboratory tests, this combination regimen may be discontinued or the dosage adjusted.

BENEFITS OF TREATMENT

The risk of infection from exposure is not known with certainty. However, should HIV infection occur, the outcome may be fatal. Antiretroviral regimen may prevent infection after exposure to HIV. The benefit of antiretroviral therapy in preventing infection after exposure is unproven. If treatment is delayed for more than 24 hours, the benefits of antiretroviral therapy becomes uncertain. The duration of antiretroviral treatment likely to prevent infection is not known, but could be prolonged. For this reason, many clinicians recommend taking the drug(s) for at least four (4) weeks.

RISKS

If I take antiretroviral regimen, I might develop symptoms including headache, skin rash, flank pain, muscle pain, tiredness, loss of appetite, trouble sleeping, fever, nausea, vomiting, dizziness, gas and diarrhea. Although unlikely, I might also develop anemia, low white blood count, hepatitis (liver inflammation), nervous system inflammation (meningitis, encephalitis), muscle inflammation, diabetes, lipodystrophy (abnormal fat deposits) or other serious adverse effects.

Although considered unlikely, delayed effects of antiretroviral regimens could include carcinogenesis (cancer) or mutagenesis (mutations in genetic material). Having my blood drawn may be painful and may cause a bruise, or rarely, an infection.

TREATMENT OPTIONS

Treatment with antiretroviral drugs is voluntary. If I decide to stop taking such therapy, I should notify my clinician within 24 hours. If I elect to receive or discontinue post exposure antiretroviral therapy, neither my employment nor other treatment and follow-up for my exposure will be affected. Declining post exposure antiretroviral therapy will not affect benefits to which I am otherwise entitled as a result of my exposure.

I certify that I have read the preceding, or it has been read to me, and that I understand its content. I understand fully the risks/benefits as they have been explained to me. I elect to take combination therapy.

_____ _____
Date Employee Signature

_____ _____
Date Clinician Signature

ANTIRETROVIRAL TREATMENT INSTRUCTIONS FOR EMPLOYEES OCCUPATIONALLY EXPOSED TO HIV

I. MEDICATION INFORMATION

A. Combivir (Zidovudine; ZDV/Lamivudine; 3TC)
1. Dosage - Take one tablet (300 mg ZDV/150 mg 3TC) by mouth twice a day. Swallow tablets with a drink of water. If Combivir upsets your stomach, take it with food. Doses should be taken at regular intervals (e.g. every 12 hours).

2. Storage - Store at room temperature in a closed container away from heat, moisture and direct light.

B. Viracept (Nelfinavir)
1. Dosage - Take two 625 mg tablets twice a day with food. Doses should be taken at regular intervals (e.g. every 12 hours). Most people develop diarrhea with Viracept. Take imodium 4mg (two tablets) po after first loose stool then one tablet after each loose stool taking no greater than 8 tablets a day.
2. Storage - Store medication at room temperature. Keep the container away from heat, moisture and direct light.

C. Crixivan (Indinavir)
1. Dosage Take two 400 mg capsules every 8 hours on an empty stomach (1 hour before or two hours after eating). Take each dose with 16 ounces of water.
2. Storage Store medication in original container at room temperature. Keep the container away from heat, moisture and direct light.

II. MEDICATION AVAILABILITY

Employees electing to receive an antiretroviral regimen should start therapy as soon as possible. The emergency department or Comp Care Facility where the employee is receiving treatment may provide a 3-day supply of medication, in order to allow time for the patient's pharmacy to obtain additional medication. If the emergency department or Comp Care Facility is unable to provide a 3-days supply, the employee should be given a prescription for a 3-day supply of medication, in addition to the prescription for the 4 week supply. The employee should go directly to their local pharmacy listed on the **Corvel DOC WC Authorization/Physician's Report/Pharmacy Guide Sheet** with the prescriptions to obtain their supply of PEP medication. In the event that local acquisition is not possible, an emergency 3-day supply of medication may be obtained from Central Pharmacy or McCain Pharmacy.

If the employee has contacted the area pharmacies and the medication must be ordered and will not be available until the next day, the Central Pharmacy/McCain on-call pharmacist may fill the prescriptions for a 3-day supply of medication. If this is necessary, the employee should call Central Prison/McCain and have them page the on-call pharmacist.

GIVE TO EMPLOYEE IF APPROPRIATE

BLOOD-BORNE PATHOGEN EXPOSURE - WRITTEN OPINION

To: Department of Correction (Human Resources)

From: _____
(Please Print)

Telephone #: _____

Date: _____
(*This form must be sent no later than 15 days after the initial visit.)*

Name of Exposed Employee:

Date of Exposure:

The above named employee was examined _____ for evaluation of the above
(Date)
dated blood-borne pathogen exposure. It was determined on this visit that:

_____ The Hepatitis B vaccine is <u>not indicated</u> because
_____ The Hepatitis B vaccine <u>is indicated</u> and was:
_____ received
_____ refused at this time

_____HIV post-exposure prophylaxis is not indicated because
_____HIV post-exposure prophylaxis <u>is indicated</u> and was:
_____received
_____refused at this time

The employee _____ was
_____ was not informed of the need for the above follow-up

The employee: _____was
_____was not informed of the results of the evaluation.

It was determined that the employee should return for the following follow-up evaluation:

Provider Signature

Attending Physician: Mail original form completed/and signed with evaluation to:

(Correctional Facility Name)

ATTENTION: PERSONNEL DEPARTMENT

_____
(ADDRESS)

_____
(City, State, Zip Code)

Original: - DOC Employee Health
Copy: - Exposed Employee