Airborne/ Bloodborne Pathogens

Exposure Control

Course Information

Course Title:	Airborne/Bloodborne Pathogens Exposure Control
Course Codes:	DOC 423 CLEET#16-1139
Training Credit:	1 Hour
Type of Training Credit:	Orientation / Annual In-service / Safety
Original Course Created By:	David McKay, CTO II, JEHCC
Date:	
SME Annual Review By:	Sheri Jones, Nurse Manager Health Services, Oklahoma City, OK , 14 JAN 2016
Curriculum Revision/Date:	Terri Vogt, APO II, EDU; 19JAN2016
Course Approval/Date:	Phil Gilstrap, Training Manager, EDU; 19JAN 2016
Target Population:	All DOC Staff
Classroom Presentation:	
Approved Instructors:	Safety Officers/Certified Instructors
Delivery/Presentation:	Classroom
Evaluation procedures:	Instructor observation
Online Course:	
Approved Instructors:	N/A
Delivery/Presentation:	Self-paced online study
Evaluation Procedures:	N/A

Course Objectives

Describe how airborne and blood borne pathogens are transmitted.

Describe how elements unique to correctional environments elevate risk for the spread of air and blood borne pathogens.

Explain the difference between active and latent tuberculosis (TB).

Identify physical conditions which might increase the risk of being infected with TB.

Describe strategies to prevent the spread of multi-drug resistant TB.

Identify when DOC offenders will be evaluated for TB.

Identify elements of the ODOC TB control strategies.

Determine when you should wear a N95 particulate respirator.

Explain how HIV, HBV, and HCV are transmitted

Explain why the “window period” for HIV is important.

Identify how long after the onset of symptoms is it before patients, who are not chronically infected, test negative for HBV.

Course Objectives (cont.)

Determine when the Hepatitis B vaccine is made available to employees.

Explain what can be done with any offender who has a documented history of repeated high risk behavioral encounters.

Determine what can happen if an employee fails to protect the privacy of a person named on the HIV roster.

Determine the purpose and function for engineering and work practice controls.

Describe how to observe “universal precautions.”

Describe the procedures to follow in the event of a blood borne pathogen exposure.

Identify when you should remove and replace personal protective equipment.

Type of bleach solution that is used as a disinfectant.

Describe how contaminated laundry will be packaged and transported.

Identify where biohazard warning signs are posted.

The risk of getting infected with an Airborne or Bloodborne Pathogen is a critical concern throughout the country

and extensive public health programs have been put in place to prevent the spread of these diseases and to treat infected individuals.

It is an even more critical concern in the correctional environment.

A correctional facility, by the nature of its design, combines high population density with small, confined, secure spaces.

We also know that some offenders engage in high risk behaviors such as I.V. drug use and unsafe sex practices. These factors, among others, magnify the risk of Airborne/Bloodborne Pathogen infection in the correctional setting when compared with the community at large.

This lesson is offered as a means of educating ODOC employees about airborne and bloodborne pathogens; how employing universal precautions is effective in preventing the spread of those pathogens; and how to use decontamination procedures, personal protective equipment, and other preventive measures designed to our protect employees and the offenders we supervise.

NOTE: This lesson is intended for general audiences. Medical personnel will need to access a more specialized intensive course on this subject.
ADDITIONAL NOTE: If the student has any questions while reading, or after reading this lesson, they should contact their facility's medical staff or the ODOC Nurse Manager at: (405) 962-6186.

Airborne Pathogens

TUBERCULOSIS

is a bacterial infection that is spread through the air. It is the leading infectious disease killer in the world. One third of the world's population is infected with TB, and TB kills about three million people a year. Although TB disease can occur anywhere in the body, such as the kidney, spine, and brain, usually it is in the lungs. It is considered infectious to others only if it is in the lungs or throat (larynx). The World Health Organization has designated TB as a "global emergency." It is the only disease carrying that designation.

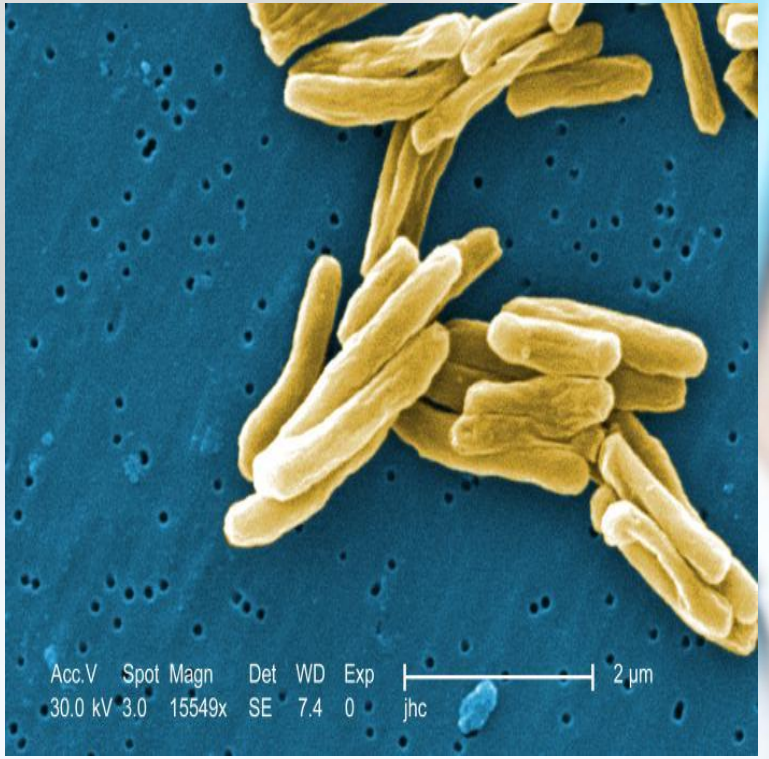


Photo of mycobacterium tuberculosis courtesy of: CDC Centers for Disease Control and Prevention

Airborne Pathogens

HOW IS TUBERCULOSIS (TB) TRANSMITTED?

It is spread through the air from one person to another. The bacteria are put into the air when a person with active TB disease of the lungs or throat coughs or sneezes. People nearby may breathe in these bacteria and become infected.

Photo of sputum sample containing mycobacterium tuberculosis courtesy of: CDC Centers for Disease Control and Prevention

Airborne Pathogens

EXPOSURE MEANS YOU HAVE SHARED AIRSPACE WITH SOMEONE WHO HAS TB DISEASE.

You may or may not be infected.

INFECTION MEANS TRANSMISSION HAS OCCURRED

as a result of your exposure to someone with TB disease and you are now infected with the bacteria.

DISEASE MEANS YOUR TB INFECTION HAS BECOME ACTIVE

and you could now transmit the bacteria to others.

DRUG-RESISTANT TB:

"Drug-resistant" means certain antibiotics cannot kill the bacteria.

MDR-TB (multi-drug resistant TB)

means being resistant to at least two of the antibiotics used to treat tuberculosis.

PRIMARY DRUG RESISTANCE

is acquired by not taking TB medications correctly.

SECONDARY DRUG RESISTANCE

means you have been infected by someone with drug-resistant TB.

Drug-resistant TB s transmitted in the same way as drug-sensitive TB.

Airborne Pathogens

How can an individual help prevent the spread of Drug Resistant TB?

A range of effective strategies for preventing the spread of multi-drug resistant TB have been developed, and it is imperative that the patient follow their treatment plans as prescribed.

STRATEGIES FOR PREVENTING DRUG RESISTANT TB:

- Take TB medications as prescribed
- Take the right dose
- On the right schedule
- For the right length of treatment

Airborne Pathogens

What are the symptoms of TB?

There are observable physical symptoms associated with TB. Not ALL patients with the disease will exhibit ALL of the symptoms, but the most common symptoms are:

Productive cough with bloody sputum

Weight loss

Fever/Chills

Fatigue

Night sweats

Chest pain

Not everyone infected with TB bacteria becomes sick.

People who are not sick have what is called latent TB infection. People who have latent TB infection do not feel sick, do not have any symptoms, and cannot spread TB to others. But some people with latent TB infection go on to develop TB disease.

TREATMENT:

Most people with latent TB infection take medicine so that they will not develop active TB disease.

People with **active TB disease** can be treated if they seek medical help.

Airborne Pathogens

People with active TB disease are most likely to spread it to people they spend time with every day. This includes family members, friends, and coworkers.

THERE IS A HIGH RISK OF TB INFECTION IN CORRECTIONAL FACILITIES DUE TO:

- Small room size with poor ventilation
- No special (HEPA) filtration
- Infected individual is coughing, singing, etc.
- Length of time spent with infected individual

It is important to keep in mind that most persons infected with TB who are going to develop active TB will do so within the first two years of their infection and most of those within the first six months. Therefore, it is imperative to identify contacts and get infected individuals started on treatment as early as possible.

Airborne Pathogens

There are groups of patients that are at higher risk of activating their TB infection than others; including:

HIV infected people
who have TB infection have an 8% to 10% risk per year of progressing to TB disease.

Non-HIV infected people
with TB infection have 10% risk per lifetime of progressing to TB disease.

Babies and young children
whom often have weak immune systems.

People who have weak immune systems are particularly at risk of being infected with TB. People with any of these conditions are at risk:

- SUBSTANCE ABUSE
- DIABETES MELLITUS
- SILICOSIS *(respiratory disease caused by inhaling silica dust)*
- CANCER OF THE HEAD OR NECK
- LEUKEMIA OR HODGKIN'S DISEASE
- SEVERE KIDNEY DISEASE
- LOW BODY WEIGHT
- CERTAIN MEDICAL TREATMENTS *(such as corticosteroid treatment or organ transplants)*
- SPECIALIZED TREATMENT FOR RHEUMATOID ARTHRITIS OR CROHN'S DISEASE

Airborne Pathogens

What has DOC done to protect employees and the offenders under our supervision?

OP-140301

TUBERCULOSIS CONTROL PROGRAM

"The Tuberculosis (TB) control program addresses the management of this communicable disease for offenders under the authority, custody or care of a prison or a community-based facility operated by or contracted with the Oklahoma Department of Corrections (DOC). The plan includes procedures for initial and ongoing testing for infection, surveillance, treatment (including treatment of latent tuberculosis), follow-up, isolation (when indicated), and reporting requirements to applicable local, state, and federal agencies."

Refer to OP-140301 "Tuberculosis Control Program" and OP-150501 "Tuberculosis Isolation Cell Infection Control" for further details.

Airborne Pathogens

CONTROL STRATEGIES IN CORRECTIONAL FACILITIES

The Oklahoma Department of Corrections has developed comprehensive strategies to control tuberculosis. These include:

Prompt identification and isolation of suspects

(All offenders entering the DOC system will be evaluated for tuberculosis within 72 hours after reception).

Regular testing and screening

(DOC tests all employees and offenders for TB annually.)

Use of Directly Observed Therapy (DOT)

One component of the ODOC TB control strategy is the implementation of appropriate administrative controls. These include:

Written OPs for rapid identification, isolation, medical evaluation and treatment

Effective work practices

Employee training

Airborne Pathogens

CONTROL STRATEGIES IN CORRECTIONAL FACILITIES *(cont.)*

TB Skin Testing/Screening for Correctional Facility Staff and Offenders

Skin test at arrival unless past positive documentation

Use two-step or booster test

Educate regarding increased risk of TB for immuno-compromised persons

Follow-Up Testing and Screening

Repeat skin test or screening tool annually

Analyze skin test data

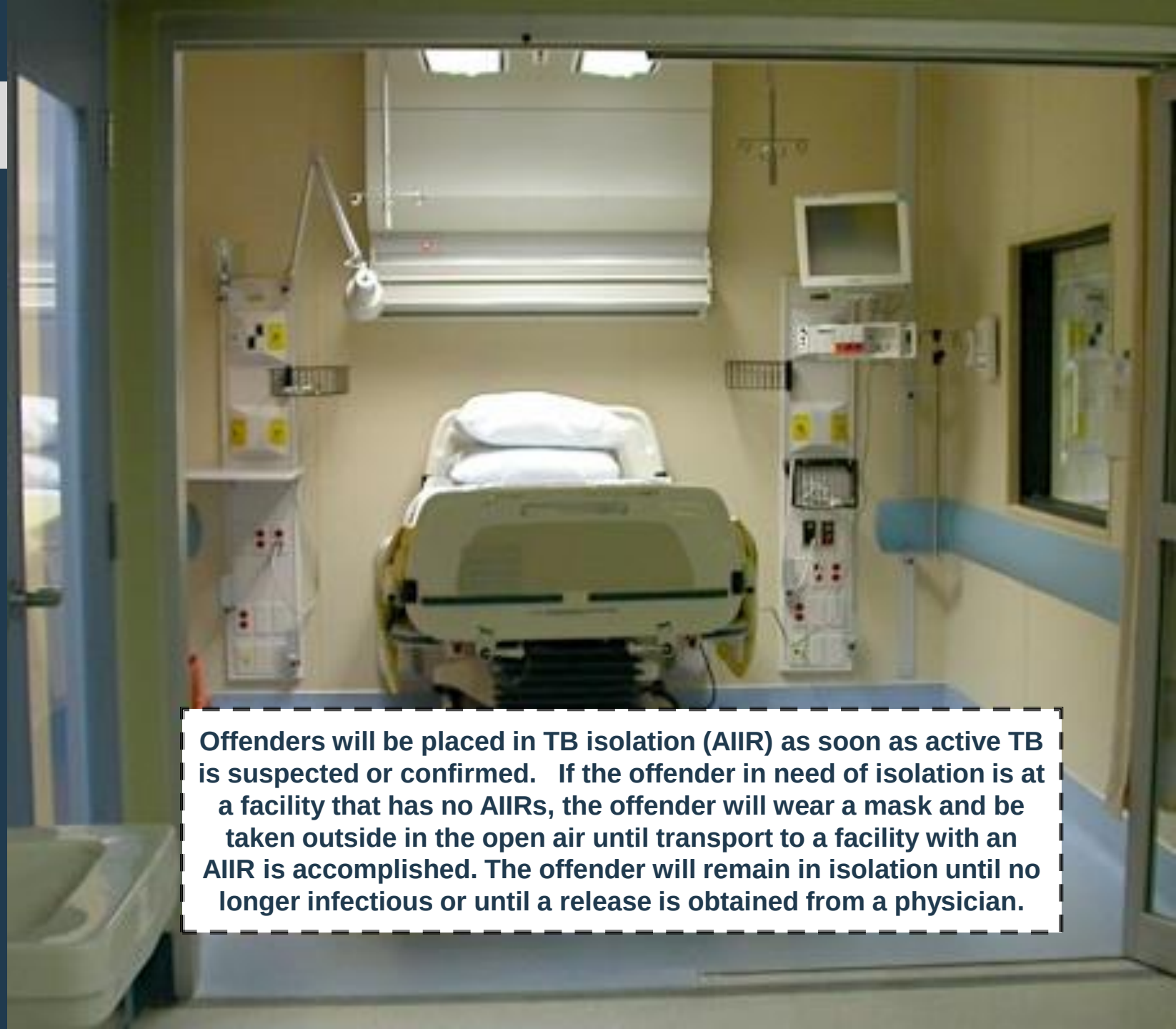
Due to the nature of the offender population, the Department of Corrections meets the intermediate risk level criteria established by the Centers for Disease Control (CDC) in "Guidelines for Preventing the Transmission of Micro bacterium Tuberculosis in Health-Care Settings, 2005

Airborne Pathogens

How do we manage cases of TB or suspected cases of TB within correctional facilities?

How do we house and transport them from place to place?

The issue of housing is resolved by using Airborne Infection Isolation Rooms (AIIRs).



Offenders will be placed in TB isolation (AIIR) as soon as active TB is suspected or confirmed. If the offender in need of isolation is at a facility that has no AIIRs, the offender will wear a mask and be taken outside in the open air until transport to a facility with an AIIR is accomplished. The offender will remain in isolation until no longer infectious or until a release is obtained from a physician.

Airborne Pathogens

How can employees safely interact with offenders with suspect or confirmed cases of TB?

Through the use of the N-95 Particulate Respirator (HEPA mask).

Wear the N-95 Particulate Respirator:

When sharing air space with a TB suspect/case

While performing or assisting with cough inducing procedures, such as sputum collection

When transporting TB suspects/cases

What is a Bloodborne Pathogen?

BLOODBORNE

Carried in the blood

PATHOGEN

A microorganism or substance capable of producing a disease

There are three bloodborne pathogens which are of primary concern. These are:

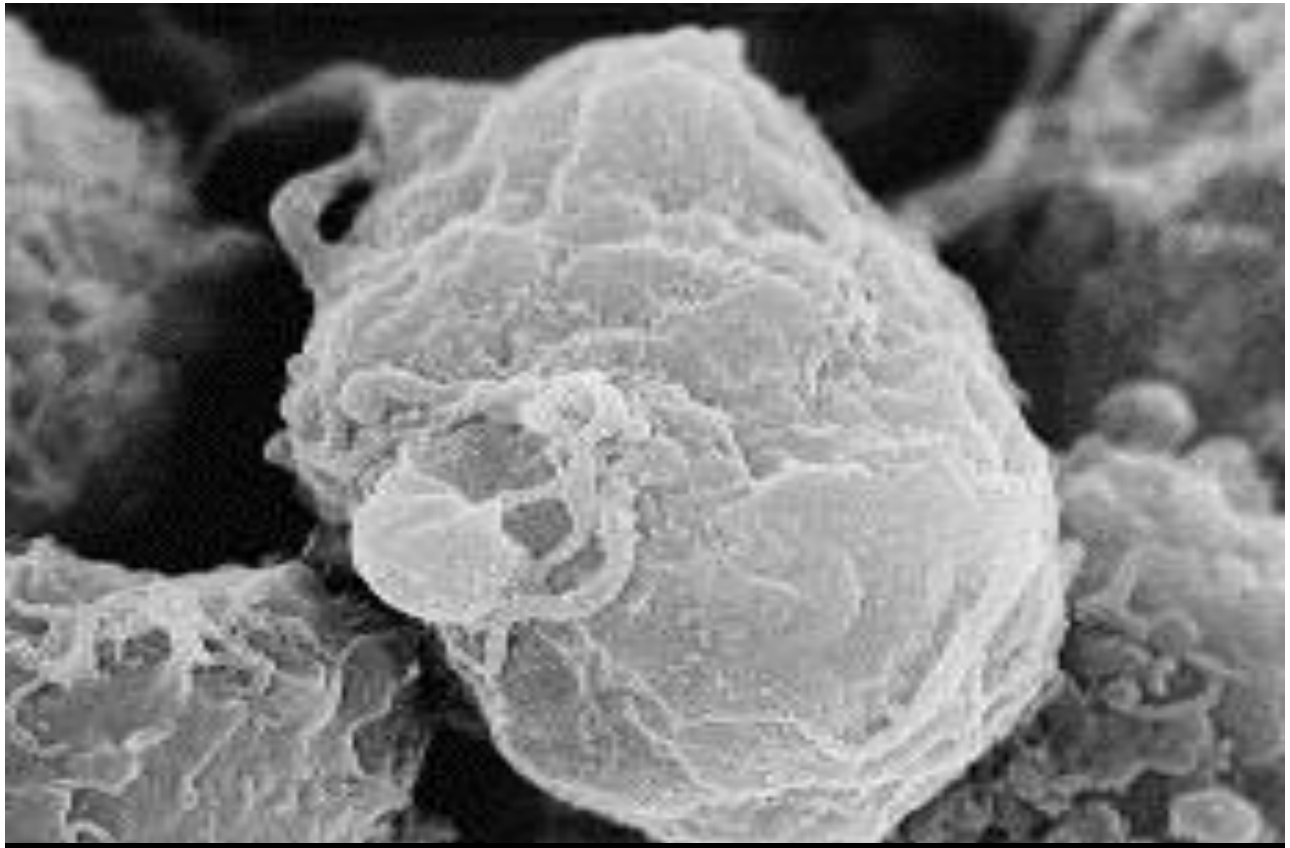


Photo of HIV virus grown in culture courtesy of U.S. Centers for Disease Control.

Human Immunodeficiency Virus (HIV)

Hepatitis B Virus (HBV)

Hepatitis C Virus (HCV)

Bloodborne Pathogens

(HIV) – The virus that can cause AIDS

The only way to know if you are infected is to be tested for HIV infection.

You cannot rely on symptoms to know whether or not you are infected. Many people who are infected with HIV do not have any symptoms at all for 10 years or more.

The "window period"

is the amount of time between infection and the development of detectable antibodies.

The window period for HIV exposure resulting in infection is six months before antibodies are detectable on blood test.

The window period is important because someone who is in the window period can infect another person even though their test is negative.

OBSERVABLE SYMPTOMS OF HIV:

Rapid weight loss

Dry cough

Recurring fever or profuse night sweats

Profound and unexplained fatigue

Swollen lymph glands in the armpits, groin, or neck

Diarrhea that lasts for more than a week

White spots or unusual blemishes on the tongue, in the mouth, or in the throat

Pneumonia

Red, brown, pink, or purplish blotches on or under the skin or inside the mouth, nose, or eyelids

Memory loss

Depression and other neurological disorders

Bloodborne Pathogens

Hepatitis B

is caused by a virus that attacks the liver. The virus, which is called Hepatitis B virus (HBV), can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death.

HBV is spread when blood from an infected person enters the body of a person who is not infected.

HBsAg (hepatitis B surface antigen) **will be detected in an infected person's blood on the average of four weeks** *(range one - nine weeks)* **after exposure to the virus.**
About one out of two patients will no longer be infectious by seven weeks after onset of symptoms. All patients, who do not remain chronically infected, will be HBsAg-negative by 15 weeks after onset of symptoms.

If symptoms occur, they occur on the average of 12 weeks *(range 9-21 weeks)* **after exposure to hepatitis B virus.**
Symptoms occur in about 70% of patients. Symptoms are more likely to occur in adults than in children.

OBSERVABLE SYMPTOMS OF HEPATITIS

Thirty percent of persons have no signs or symptoms. Those that do exhibit symptoms may have the following:

Jaundice
Loss of appetite
Nausea
Fatigue
Diarrhea
Fever
Abdominal pain
Joint pain
Dark urine

Bloodborne Pathogens

Hepatitis C virus (HCV) is a chronic form of Hepatitis. 80% of persons have no signs or symptoms.

Long-term effects include:

CHRONIC INFECTION

55%-85%
of infected persons

CHRONIC LIVER DISEASE

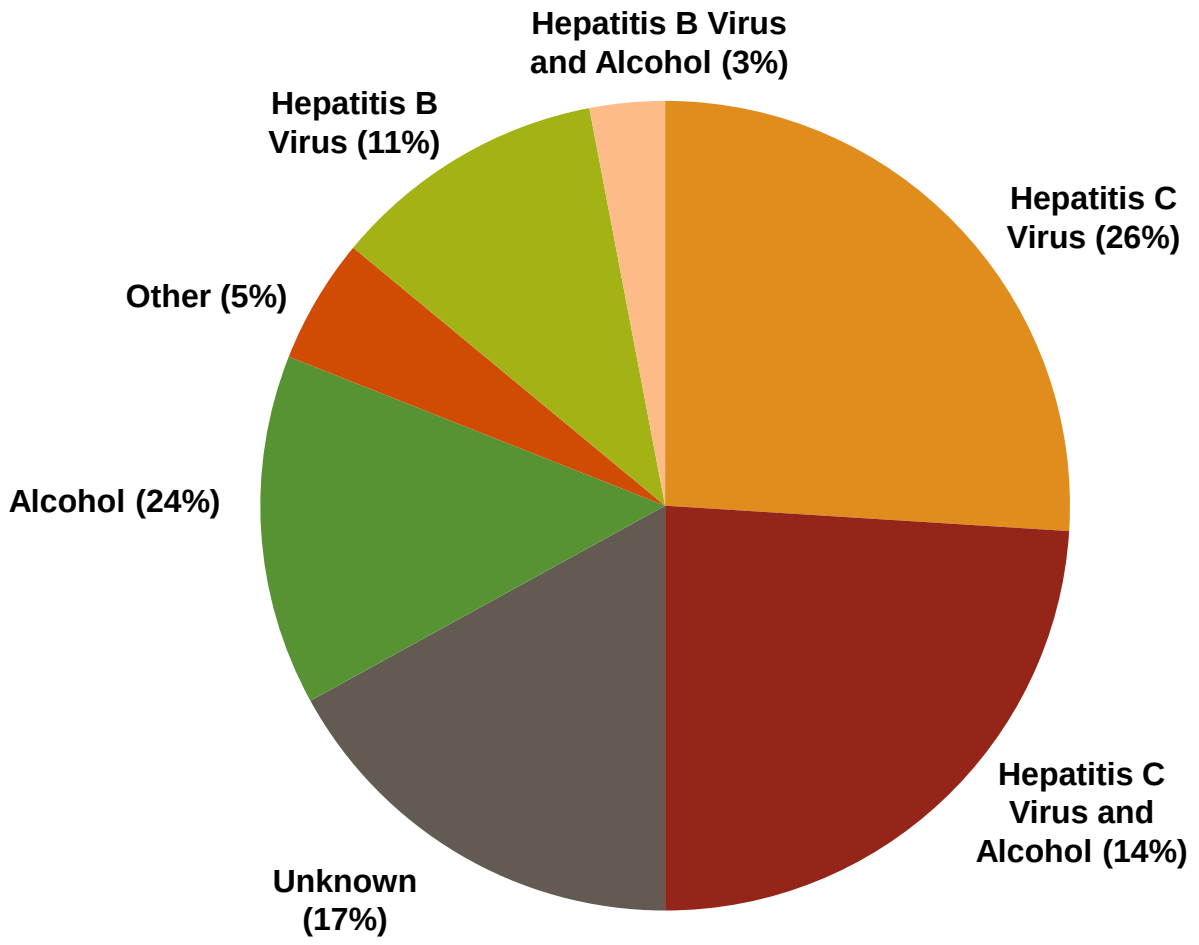
70%
of chronicaly infected persons

DEATHS FROM CHRONIC LIVER DISEASE

1%-5%
of infected persons may die

LEADING INDICATION FOR LIVER TRANSPLANT

PRIMARY CAUSES OF CHRONIC LIVER DISEASE*



*Jefferson County, Alabama USA

Bloodborne Pathogens

Transmission of HIV, HBV, and HCV

Transmission occurs when blood or contaminated body fluids from an infected person enters the body of a person who is not infected.

How bloodborne pathogens can enter your body?

1. Through a cut in the skin
2. Through a mucous membrane
3. Through sexual contact

Bloodborne pathogens may be spread by:

Having sex with an infected person without using a condom
(the efficacy of latex condoms in preventing infection with HBV is unknown, but their proper use might reduce transmission)

By sharing drugs, needles, or "works" when "shooting" drugs

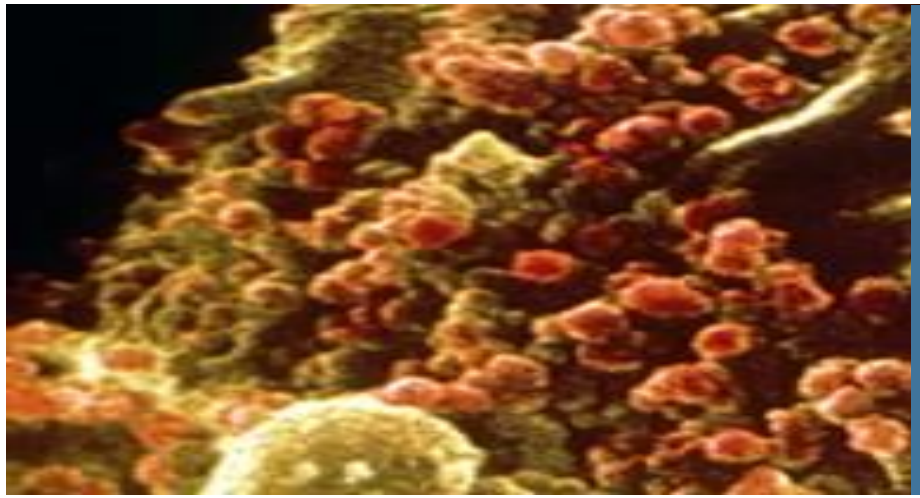
Needle-sticks or sharps exposures on the job

An infected mother to her baby during childbirth

Bloodborne Pathogens

are not spread through food or water, sharing eating utensils, hugging, kissing, coughing, sneezing, or by casual contact.

The following body fluids are considered "Potentially Infectious":



Blood

Body fluids containing visible blood

Semen

Vaginal secretions

Breast milk

Body Fluids Considered Non-Infectious
(unless blood is mixed with them)

Saliva

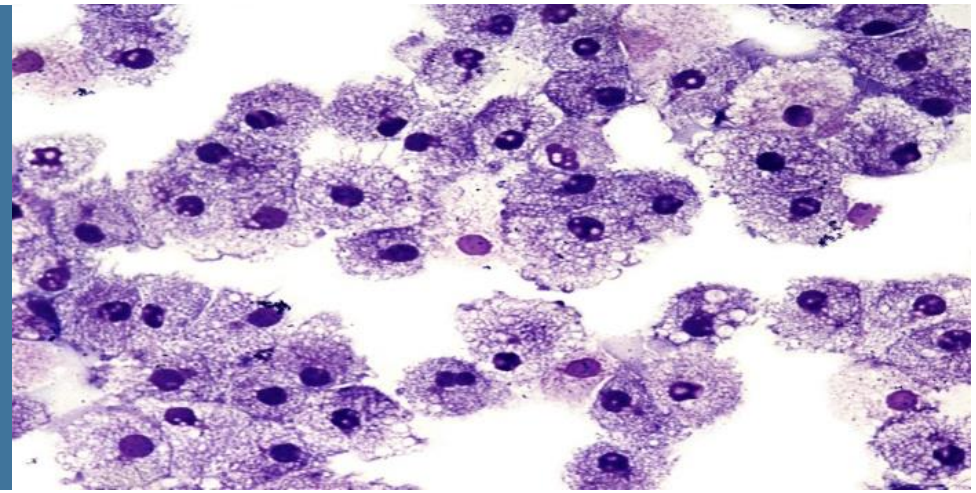
Tears

Urine

Sweat

Vomit

Feces



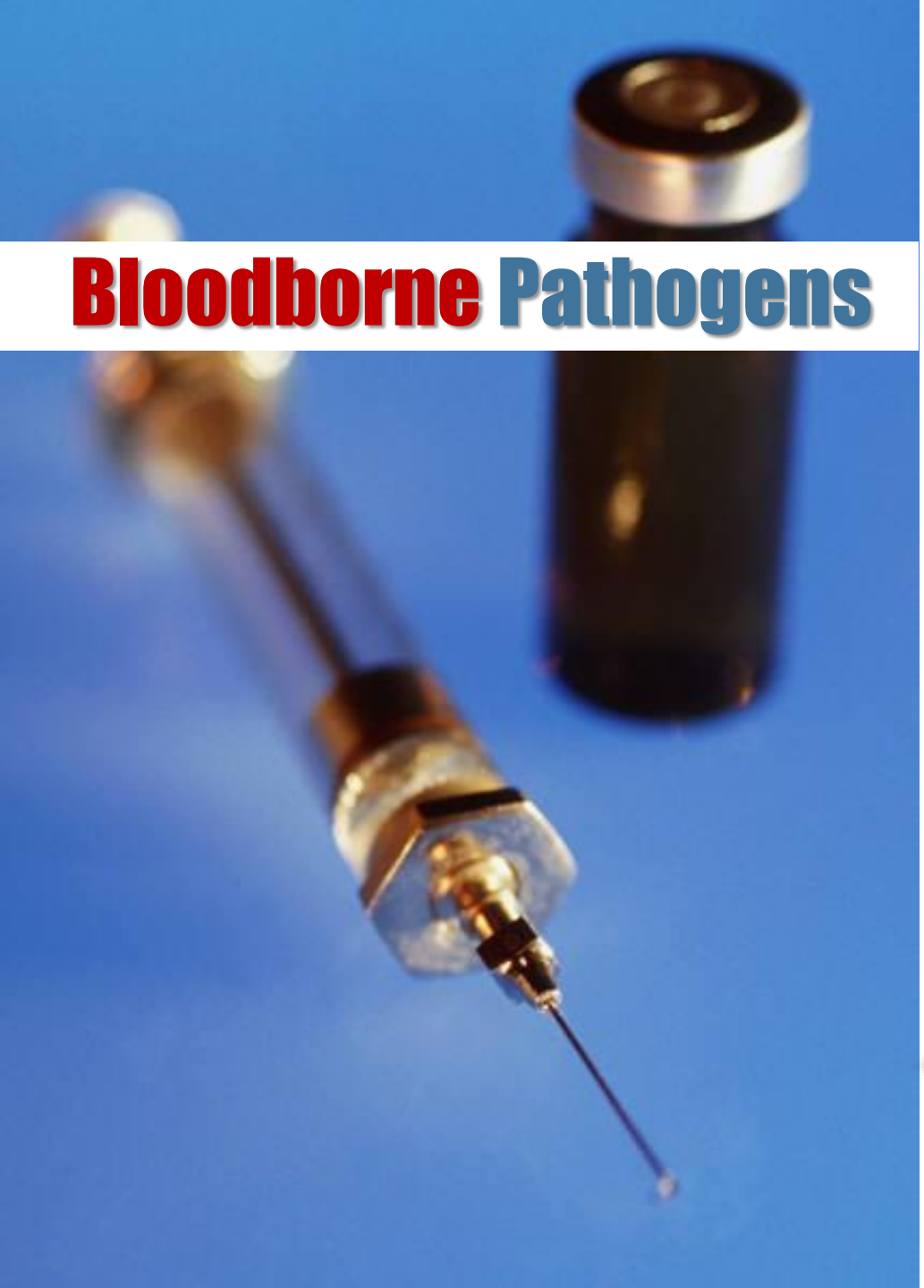
Bloodborne Pathogens

What steps has the department taken to protect employees and offenders from bloodborne pathogens?

OP-140125
Bloodborne Pathogen Exposure Control Program

"The Bloodborne Pathogen Exposure Control Program provides a comprehensive procedure to eliminate or minimize offender and employee exposure to bloodborne pathogens in the correctional environment. The plan includes appropriate management of biohazards waste and for the decontamination of medical and dental equipment."

Refer to OP-140125 "Bloodborne Pathogen Exposure Control Program" for further details.



Bloodborne Pathogens

What is ODOC doing to protect its employees from Hepatitis B infection?

Among other measures, the agency offers employees a vaccine that protects them against Hepatitis B.

HEPATITIS B VACCINE

Provided free to DOC employees who are at risk

A safe, efficient method of preventing Hepatitis B

Administered in a series of three injections on a timeline of zero one, and six months

Provides persistent immunity from one to six months (ideally six weeks) after the initial Hep B vaccine series has been completed.

In addition, we conduct post-vaccination testing for serologic response.

Bloodborne Pathogens

Occupational Exposure Classification

Employees are classified into three categories based on the likelihood that their job duties may expose them to blood or other potentially infectious materials.

CATEGORY I

Assigned job duties routinely involve direct contact with blood, body fluids, or other potentially infectious materials to which universal precautions apply. For the purposes of the Oklahoma Department of Corrections (DOC) these include:

Health Care Providers

Emergency Medical Technicians

Laboratory Technicians

X-ray Technicians

Correctional Officers

Case Managers

Unit Managers

Counselors

CATEGORY II

Assigned job duties that do not routinely involve direct contact with blood, body fluids, or other potentially infectious materials to which universal precautions apply, but may occur during an emergency response. This group includes all other institutional staff not listed in category I.

CATEGORY III

This category applies to all employees who do not work in institutions.

Bloodborne Pathogens

What daily work activities might place you at an increased risk for a workplace bloodborne pathogen exposure?

Here are some examples of activities with increased risk potential for exposure:

Any activity involving contact with mucous membranes, blood, or other potentially infectious body fluids

Cardio-pulmonary resuscitation

Handling articles (including clothing) contaminated with blood or other potentially infectious body fluids

Physical examinations or body searches involving contact with blood or other potentially infectious body fluids

Direct contact with any open wound, non-intact skin or mucous membrane

Handling or collecting laboratory specimens

Any intervention or emergency response where blood or other potentially infectious body fluids are present

Body cavity or cell searches

Handling of deceased persons including transportation or body removal

Any clean-up activity where blood or other potentially infectious body fluids are present

Bloodborne Pathogens

What behaviors increase the risk of bloodborne pathogen exposure?

#1 EMPLOYEE RISK FACTORS

Any sexual or physical assault involving the exchange of blood, body fluids, or other potentially infectious materials.

#2 OFFENDER RISK FACTORS

Any sexual or physical assault on other offenders involving the exchange of blood, body fluids, or other potentially infectious materials.

#3 GENERAL RISK FACTORS

- Sexual encounters
- Injection drug use
- Tattooing

Bloodborne Pathogens

Report of Injury or Unusual Occurrence/ Encounter

Offenders involved in high risk behaviors will have any observed behavioral encounter or incident documented on the "Report of Injury or Unusual Occurrence/Encounter" form (DOC 140125A).

An employee who discovers or witnesses encounter or incident will be responsible for documenting the behavior on the form.

OKLAHOMA DEPARTMENT OF CORRECTIONS

REPORT OF INJURY OR UNUSUAL OCCURRENCE/ENCOUNTER

Facility		Name	DOC #	Housing Assignment
Date of Occurrence	Time of Occurrence	Date and Time Reported To Health Services Unit	Place of Occurrence	

Occurrence/Encounter Involved:

☐ Offender on Offender Assault ☐ Offender onStaff Assault ☐ Sexual Assault ☐ Self Mutilation
☐ Use of Force ☐ Tattooing ☐ Injection Drug Use ☐ Suicide Attempt
☐ Accidental ☐ Work Related ☐ Sports Related ☐ Needle Stick Injury
☐ Death ☐ Bloodborne Pathogen Exposure: ☐ Staff ☐ Offender

Other: _____

Occurrence/Encounter Involved:

☐ Other Offender(s) ☐ Self Only ☐ Staff

Brief summary of the circumstances of the injury or unusual occurrence/encounter as provided by the offender/staff member:

_____

Witness(es):

Name _____ DOC #_____ Name_____ DOC #_____

Name _____ DOC #_____ Name_____ DOC #_____

Witness(es) Description:

_____

Witness(es) Signature:_____ Date:_____

_____ Date: _____

_____ Date: _____

Employee Signature: _____ Date: _____

History of prior documented encounters? ☐ Yes ☐ No

Do you wish to be seen in Health Services? ☐ Yes ☐ No

Did you inform a correctional staff member? ☐ Yes ☐ No Date _____

_____ Date _____

Signature of Person Completing Form

Original—CHSA File
Copy—Facility Head

DOC 140125A (R 2/10)

Bloodborne Pathogens

What practical steps does DOC take to prevent or minimize bloodborne exposure incidents in the workplace?

DOC developed two :

1. *Engineering*
2. *Work Practice Controls*

Engineering and work practice controls will be used to eliminate or minimize employee exposure to bloodborne pathogens. Appropriate control measures include hand washing; contaminated sharps and regulated waste disposal; work area restrictions; specimen collection, labeling, storage and transport; and appropriate handling of contaminated equipment.

If occupational risk exposure remains after control measures have been implemented, personal protective equipment will be used. Engineering controls will be reviewed and revised as needed to ensure their effectiveness.

Bloodborne Pathogens

What can all employees do to minimize the risk of bloodborne pathogen exposures?

They can implement Universal Precautions.

USING "UNIVERSAL PRECAUTIONS"

Treat all body substances as if they are infected with HIV or Hepatitis

Practice good hand washing

Use personal protective equipment when indicated

Use appropriate methods to dispose of contaminated sharps and regulated waste

Implement appropriate work area restrictions

Examples of possible workplace bloodborne pathogen exposure:

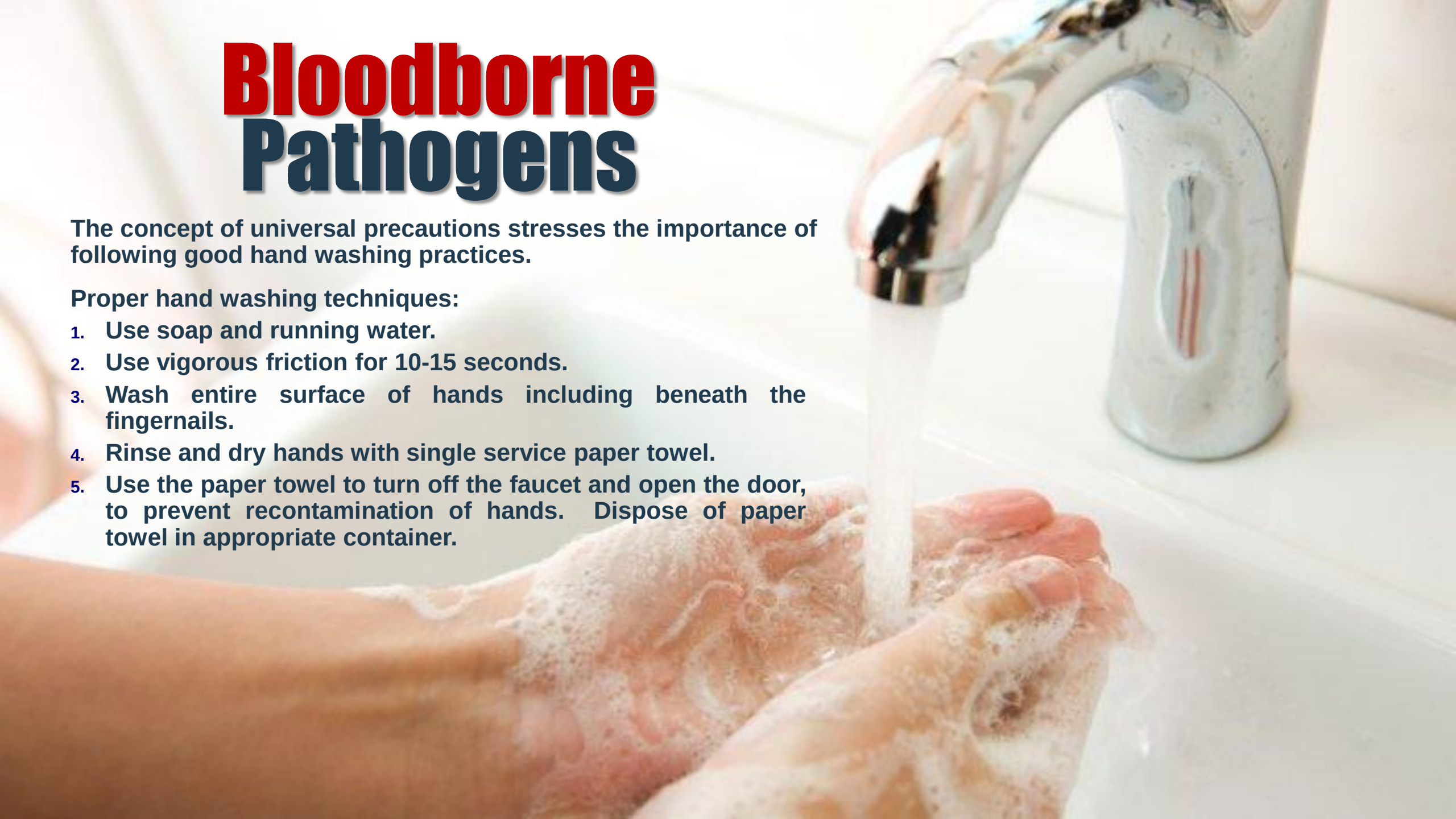
- ☑ A needle-stick with a used needle
- ☑ A cut with a sharp object that was in contact with blood, tissue, or other body fluids
- ☑ Splash to a mucous membranes
- ☑ Contact with broken skin
- ☑ **Human bites** *(Both the person bitten and the person who inflicted the bite may have been exposed to bloodborne pathogens. Both might need to be evaluated for possible exposure.)*

Bloodborne Pathogens

The concept of universal precautions stresses the importance of following good hand washing practices.

Proper hand washing techniques:

1. Use soap and running water.
2. Use vigorous friction for 10-15 seconds.
3. Wash entire surface of hands including beneath the fingernails.
4. Rinse and dry hands with single service paper towel.
5. Use the paper towel to turn off the faucet and open the door, to prevent recontamination of hands. Dispose of paper towel in appropriate container.



Bloodborne Pathogens

What should an employee do if she experiences a possible bloodborne pathogen exposure?

STEP 1

TREAT THE EXPOSURE SITE

#1
Wash the area with soap and water

#2
Flush mucous membranes with water

#3
Flush eyes with water

#4
Do NOT apply caustic agents or inject antiseptics or disinfectants into the wound

Bloodborne Pathogens

What should an employee do is she experiences a possible bloodborne pathogen exposure?

STEP 2

REPORT AND DOCUMENT

#1

Report all exposures to your supervisor and the correctional health service administrator (CHSA)

#2

Follow policy and procedure preferably within two hours

#3

Notify the Workers' Compensation carrier

#4

Obtain the post exposure medicine pack and information packet from medical OR Worker's Compensation provider

Bloodborne Pathogens

Even with engineering and work practice controls in place, there will still be some instances where the risk of workplace exposure exists. In those instances, employees are to use personal protective equipment (PPE) to protect themselves while carrying out their.

Personal protective equipment is:

- Gloves
- Gowns
- Respirator
- Face shields
- Head covers
- Shoe covers

Bloodborne Pathogens

General Guidelines for the use of Personal Protective Equipment:

1. **THE EMPLOYEE IS RESPONSIBLE FOR USING PPE**
   when contact with any potentially infectious material can be reasonably anticipated.

2. **REMOVE AND REPLACE PPE BETWEEN EACH USE**
   or whenever the barrier function is compromised.

3. **PPE MANUFACTURED AND INTENDED FOR REUSE**
   (such as goggles or resuscitation equipment)
   will be cleaned or laundered by the department at no cost to the employee.

4. **PLACE ALL USED PPE IN AN APPROPRIATELY DESIGNATED WASTE DISPOSAL CONTAINER AND LOCATION**
   at the end of the exposure episode
   prior to departing the work area, to minimize the chance of spreading the contamination.

5. **IMMEDIATELY REMOVE GARMENTS PENETRATED BY BLOOD OR OTHER POTENTIALLY INFECTIOUS MATERIAL.**

6. **DISCARD GLOVES IF THEIR BARRIER FUNCTION IS COMPROMISED.**

Bloodborne Pathogens

Masks, Eye Protection, and Face Shields:

Masks and eye protective devices *(goggles, glasses with side shields, chin length face shields)* will be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious material may be reasonably anticipated.

Disposable Gowns, Aprons, and Other Protective Body Clothing, and Shoe Covers:

These will be considered regulated contaminated waste and will be disposed of appropriately.

Masks and Other Ventilation Devices:

Dispose of single-use equipment after use.

Reusable resuscitation equipment shall be thoroughly cleaned and disinfected after each use according to the manufacturers' recommendations.

Resuscitation Devices:

Pocket mouth-to-mouth CPR devices will be accessible to all personnel who potentially provide emergency treatment. Training will be provided in the proper use of the resuscitation devices.

DECONTAMINATION

Due to the nature of the correctional environment, there are increased risks of workplace bloodborne pathogen exposure.

Whether through accidents, or assaults by offenders, the risk of encountering areas and instances where the work environment might be contaminated with blood or body fluids are increased, and these contaminated areas and surfaces must be disinfected and decontaminated, usually by the employees who work in those areas.

It is important that all employees understand how to decontaminate a possible Bloodborne pathogen exposure site.

In this section, we refer to the
“Decontamination Handbook” OP 140125—Attachment A

OP 140125

DECONTAMINATION HANDBOOK

Note: These excerpts illustrate how to decontaminate general surfaces under common circumstances. For information on decontaminating specific pieces of equipment, or more detailed instructions on how to handle unusual circumstances, refer to the attachment identified above.

Housekeeping procedures:

All environmental surfaces, working surfaces, and equipment will be cleaned and decontaminated after contact with blood, body fluids, or any potentially infectious materials.

The preferred decontamination solution for Health Service units is Sanivex. Sanivex should be used according to manufacture's guidelines. In unusual circumstances if bleach is used as a disinfectant, it MUST be freshly mixed in a 1:10 dilution with water every 24 hours.

Bloodborne Pathogens

OP-140125

DECONTAMINATION HANDBOOK

Decontamination of Spills:

Before attempting to decontaminate any spill of blood or body fluids, make sure you apply gloves and other appropriate Personal Protective Equipment.

A. **Absorb the spill.**

B. **Use Sanivex according to manufacturer's guidelines.**

C. **In the unusual circumstance that bleach is used, saturate the entire exposed surface with a 1:10 dilution of bleach. Allow the bleach time to penetrate the surface prior to removal. Do not wipe the surface completely dry. Bleach is only effective when it is in contact with the surface for 20-30 minutes.**

Bloodborne Pathogens

We now know how to disinfect surfaces, but what do we do with contaminated laundry?

DOC has also developed procedures for disinfecting contaminated laundry.

Contaminated Laundry:

Contaminated laundry will be handled as little as possible with minimal amount agitation and will not be sorted or rinsed in the location of use.

Contaminated laundry will be bagged or containerized at the location where it was used.

Contaminated laundry will be placed and transported in bags or containers that are appropriately labeled or color coded to indicate a bio-hazardous risk.

Contaminated laundry will be placed in a leak-proof container whenever it is wet and presents a reasonable likelihood of soaking through or leaking from the bag or container.

Any employee who has contact (i.e., involved in bagging, transport, or laundering) with contaminated laundry will wear gloves and other appropriate personal protective equipment and adhere to universal precautions.

Bloodborne Pathogens

Contaminated Waste:

The items listed below will be placed in containers which are closeable, constructed to contain all contents, and prevent leakage during handling, storage, transport, or shipping.

Once the exposure site is cleaned up and decontaminated, how do we dispose of contaminated waste?

- ☑ **Contaminated sharps containers**
- ☑ **Regulated contaminated waste**
- ☑ **Specimen containers**
- ☑ **All other regulated contaminated waste**

Containers will be closed immediately prior to removal or replacement and labeled or color-coded to identify contents. If leakage is possible or anticipated, a secondary container will be used. This secondary container will be closable, constructed to contain all contents and prevent leakage, and labeled or color-coded to identify contents.

Disposal of all regulated waste will be in accordance with applicable regulations of the United States, states and territories, and political subdivisions of states and territories.

Bloodborne Pathogens

DOC has also developed procedures to warn employees of potentially hazardous areas and equipment.

Bio-Hazard Warning Signs:

Warning signs will include the biohazard symbol and the word "BIOHAZARD."

Warning signs will be posted on all access doors entering any work area that has been identified as having the potential for contamination.

Any area designated as a biohazard disposal and/or storage location will have a warning sign posted at the entrance.

Warning signs posted in potentially contaminated work areas will specify the type(s) of restrictions that apply to persons entering that area.

REVIEW

What questions do you still have?

How does this information about airborne/bloodborne pathogens apply to your specific worksite?

In this lesson, you have learned about the airborne and bloodborne pathogens that are of critical concern in the correctional environment.

We reviewed information about Tuberculosis, HIV/AIDS, HBV, HCV, their symptoms, and means of transmission. You have been informed of what the Oklahoma Department of Corrections has done to minimize or eliminate these dangers from the workplace.

You have been instructed as to the use of universal precautions and in procedures employees should use when confronted by the risk of exposure incidents. You have also been instructed as to what to do about a possible exposure and the responsibilities of both the department and the individual employee under those circumstances.

You have been advised as to the use of personal protective equipment (PPE), the procedures for decontaminating general surfaces, laundering clothing, and for the disposal of contaminated waste. Finally, you learned the importance of properly using and observing biohazard warning signs.

The importance of implementing these procedures cannot be overemphasized and the strict observance and utilization of universal precautions and decontamination procedures play a large part in protecting both our employees and the offenders under our supervision from airborne and bloodborne pathogens.

For more details regarding the subjects in this lesson, refer to the following OPs:

OP-140301 entitled, “Tuberculosis Control Program.”
OP-150501 entitled, “Tuberculosis Isolation Cell Infection Control.”
OP-140125 entitled, “Bloodborne Pathogen Exposure Control Program.”
Attachment A OP-140125 entitled, “Decontamination Handbook For Bloodborne Pathogens.”