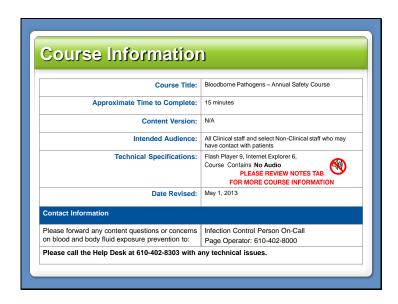


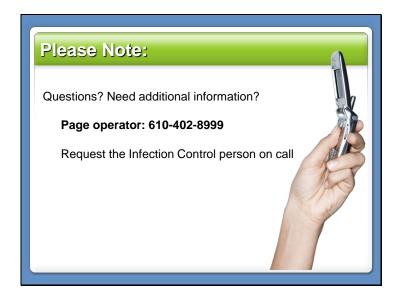
Lehigh Valley Health Network cares about your safety – especially about protecting you from diseases carried in blood and other body fluids. Upon successful completion of the Bloodborne Pathogens course you will be able to discuss how bloodborne pathogens are transmitted in the healthcare setting and identify ways in which the healthcare provider can protect him or herself to help minimize the risk of acquiring a bloodborne disease.



The Bloodborne Pathogens course fulfills annual training requirements set by the Occupational Safety and Health Administration. The course will take approximately 15 minutes to complete.

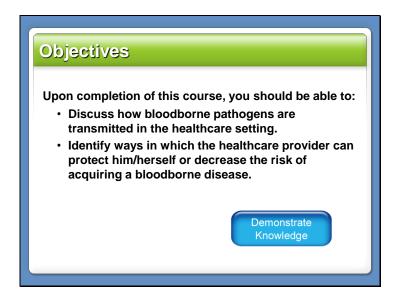
Any technical issues related to the course or the eLearning system should be directed to the Help Desk at 610-402-8303.

To review the navigational features of the course, click on the Navigation tab at the top of the screen.



If, while completing this course, you have any content questions or would like additional information on blood and body fluid exposure prevention, please contact the page operator at 610-402-8999.

Please ask to page the infection control person on-call. Your call is important and will be promptly returned to discuss your question.

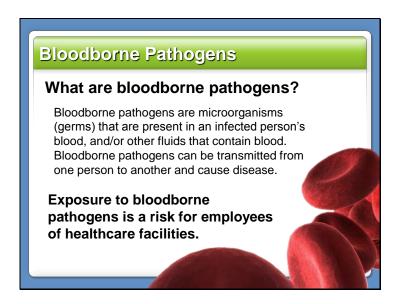


Upon completion of this course, you should be able to:

- •Discuss how bloodborne pathogens are transmitted in the healthcare setting.
- •Identify ways in which the healthcare provider can protect him/herself or decrease the risk of acquiring a bloodborne disease.

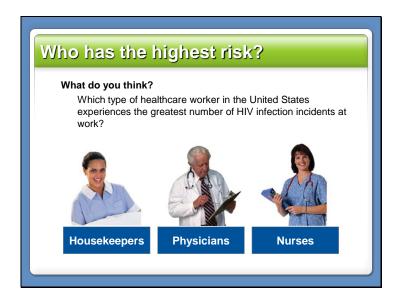
If you feel you have already mastered the content described in the course objectives and would like to demonstrate your knowledge, you may click the "Demonstrate Knowledge" button and move directly to the course test. You must earn a score of at least 80% on the test to successfully pass this course.

However, it is suggested that you review the content as it has been updated. To continue onto the course content, please select the next button located at the bottom of the screen.



Bloodborne pathogens are microorganisms (germs) that are present in an infected person's blood and/or other body fluids that contain blood. Bloodborne pathogens can be transmitted from one person to another and cause disease.

Exposure to bloodborne pathogens is a risk for employees of healthcare facilities. The Occupational Safety and Health Administration known commonly as OSHA estimates that millions of workers in the healthcare industry and related occupations are at risk of occupational exposure to bloodborne pathogens, including human immunodeficiency virus (HIV), the hepatitis B virus, and hepatitis C virus.



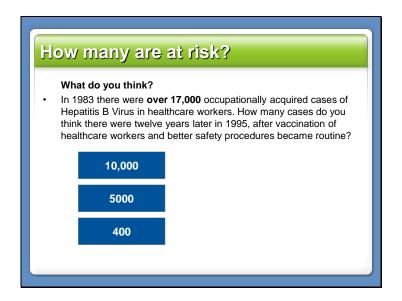
Who has the highest risk?

Use your mouse to select the type of U.S. healthcare worker you think experiences the greatest number of HIV infection incidents at work.

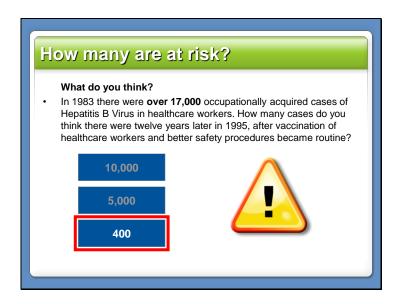


The correct answer is nurses.

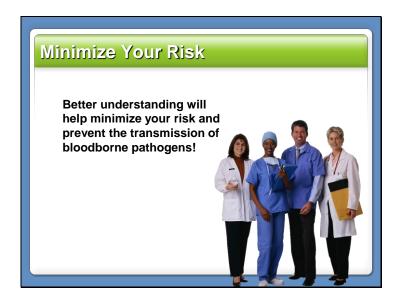
The majority of U.S. HIV infections at work have occurred among nurses.



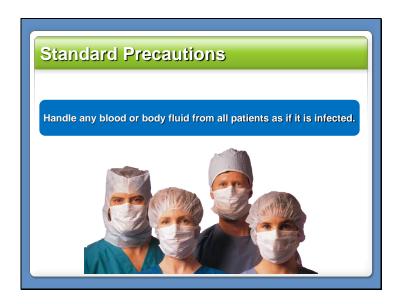
In 1983 there were over 17,000 occupationally acquired cases of Hepatitis B Virus in healthcare workers. How many cases do you think there were twelve years later in 1995, after vaccination of healthcare workers and better safety procedures became routine?



The correct answer is only 400 healthcare workers became infected with hepatitis B virus in the workplace in 1995 due to increase of vaccinations along with preventative measures and the use of safety devices.

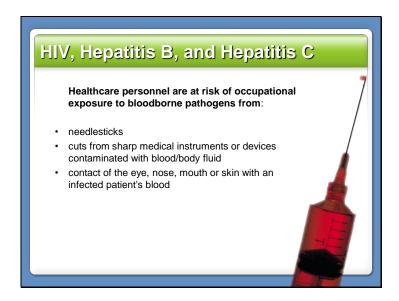


By understanding the ideas in this safety course, you can help minimize your risk, and prevent the transmission of diseases such as those caused by HIV, the hepatitis B virus (HBV), and the hepatitis C virus (HCV).



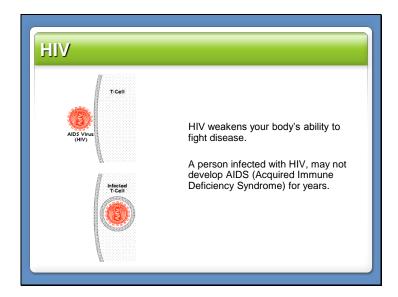
In the health care setting all personnel should implement STANDARD PRECAUTIONS when dealing with blood and body fluids.

STANDARD PRECAUTIONS means that blood and body fluids from all patients MUST be handled as if they are infected with a bloodborne pathogen.



Healthcare personnel are at risk for occupational exposure to bloodborne pathogens, including HIV, hepatitis B, and hepatitis C viruses.

HIV, hepatitis B, and the hepatitis C viruses are carried in the blood of an infected person. The viruses can be transmitted from person to person through exposure to infected blood and/or body fluids that contain blood. In the healthcare setting exposures occur through needlesticks or cuts from other sharp instruments contaminated with an infected patient's blood or through contact of the eye, nose, mouth, or skin with a patient's blood.

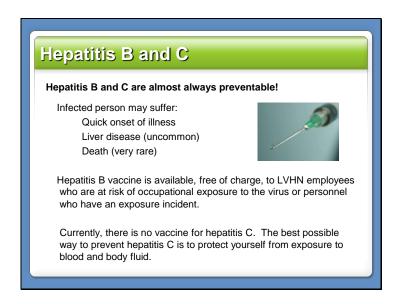


You may have heard more about HIV than about hepatitis. Although hepatitis disease is more common, there is no vaccine for HIV.

HIV enters your body and weakens your body's ability to fight disease.

Many times, HIV infections remain silent for years before developing into AIDS (Acquired Immune Deficiency Syndrome).

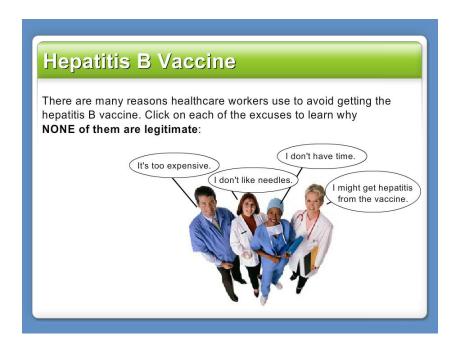
Similarly, the hepatitis virus may lay undetected in your body for years before grave illness occurs.



Almost all cases of hepatitis B and C can be prevented! A person infected with hepatitis B or C can become very sick very quickly. Liver disease happens to only about one person in every hundred infected. Death is rare, but can happen.

A hepatitis B vaccine (a series of three injections) is available, free of charge, to LVHN employees who are at risk of occupational exposure to the virus or personnel who have an exposure incident.

Currently, there is no vaccine for hepatitis C. The best possible way to prevent hepatitis C is to protect yourself from exposure to blood and body fluid.



There are many reasons healthcare workers use to avoid getting the hepatitis B vaccine. Using your mouse click on each of the excuses to learn why NONE of them are legitimate.

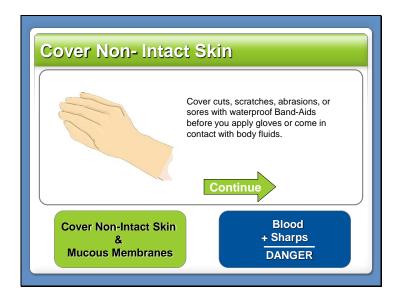
If you have not received the vaccine and believe you are at risk, contact Employee Health Services at 610-402-8869.



You can help minimize your risk and prevent the transmission of diseases carried in blood and/or other body fluids that may contain blood by understanding and practicing these two key principles.

- •Cover non-intact skin and mucous membranes
- •Blood + "Sharps" = DANGER

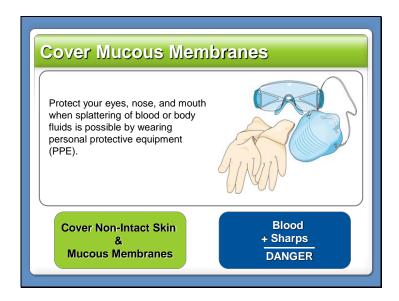
Click on the blue boxes to further evaluate each of the two key principles.



Viruses can enter your body through non-intact skin. Examples of non-intact skin include: cuts, scratches, abrasions, or sores.

Protect yourself by covering breaks in skin with waterproof Band-Aids before applying gloves or coming into contact with body fluids.

Use your mouse to click on the Continue arrow.



Viruses can enter your body through mucous membranes. Mucous membranes include the lining of your eyes, nose, and mouth.

It is important that you protect your eyes, nose, and mouth whenever there is a possibility of splattering of body fluids such as blood and other body fluids that contain blood. Protect yourself by wearing the proper personal protective equipment (PPE).

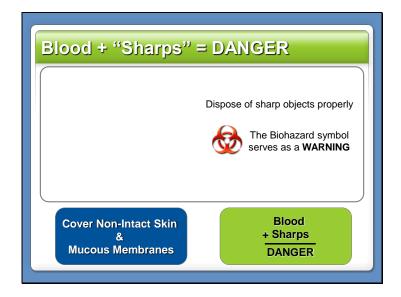


To help decrease your risk of acquiring a bloodborne disease, protect yourself when handling "sharps". Whenever blood and sharps come together you may be at risk. Always use safe work practices.

Familiarize yourself with needleless products and other safety devices available at LVHN and always activate the safety mechanism.

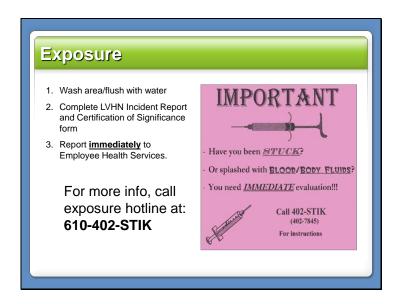
When handling sharp objects always point them away from yourself and co-workers.

Use your mouse to click on the Continue arrow.



Dispose of sharp objects into designated puncture-resistant containers. To protect yourself from an accidental stick NEVER recap used needles.

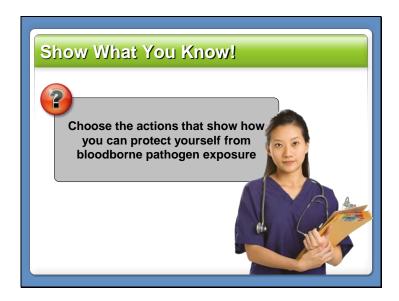
The Biohazard symbol is used on labels, signs, and bags as a **WARNING** to personnel of the possible presence of blood and other potentially infectious body fluids.



If you are exposed to a patient's blood or body fluids:

- •Wash the puncture site, wound, or area with soap and water. If you were splashed in the eyes, nose, or mouth, flush the mucous membrane with large amounts of water.
- •Complete the LVHN Incident Report and Certification of Significance form.
- •Report <u>immediately</u> to Employee Health Services (if Employee Health is closed, report to the Emergency Department).

If you need additional information about what to do in case of a blood or body fluid exposure, call 610-402-STIK.



Do you know how to minimize your risk of being exposed to a bloodborne pathogen? In this section of the course, you will be asked to choose actions that demonstrate your understanding of how to protect yourself at work.

Show What You Know!

1. Someone drops a tube of blood. Does the way you clean it up depend on whether or not the donor has HIV?

Correct	Choice
	Yes
Х	No

Feedback when correct: Correct, To follow "standard precautions", you must treat everyone's blood as infectious. Never clean up broken glass with your hands!

Feedback when incorrect: Incorrect, To follow "standard precautions", you must treat everyone's blood as infectious. Never clean up broken glass with your hands

2. While you are working, you get stuck with a used needle. You decide the injury is slight. You feel fairly certain that the needle did not come from a patient who has hepatitis or HIV. You decide NOT to go for medical follow-up. Is this the correct procedure to follow?

Correct	Choice
	Yes
Х	No

Feedback when correct: Correct, Under "standard precautions" all exposures are considered to be potentially infectious. You should always seek medical attention when you are injured at work.

Feedback when incorrect: Incorrect, Under "standard precautions" all exposures are considered to be potentially infectious. You should always seek medical attention when you are injured at work.

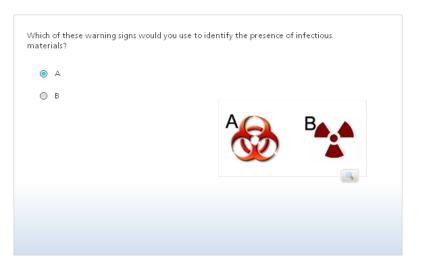
3. While you are working, you get stuck with a used needle. You have NEVER received the hepatitis B vaccine (a series of three injections). If you had received the vaccine before getting stuck, would your risk of hepatitis B infection be reduced now?

Correct	Choice
Х	Yes
	No

Feedback when correct: Correct, The hepatitis B vaccine is effective in preventing the hepatitis B disease. All persons who are exposed to blood on the job should consider receiving the vaccine. The vaccine is offered free of charge through Employee Health Services.

Feedback when incorrect: Incorrect, The hepatitis B vaccine is effective in preventing the hepatitis B disease. All persons who are exposed to blood on the job should consider receiving the vaccine. The vaccine is offered free of charge through Employee Health Services.

4.



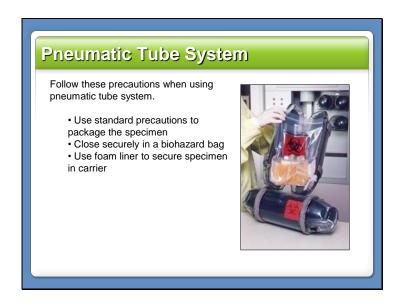
Correct	Choice
Х	A
	В

Feedback when correct: Correct, the biohazard symbol is used to identify the presence of infectious materials.

Feedback when incorrect: Incorrect, the biohazard symbol is used to identify the presence of infectious materials.

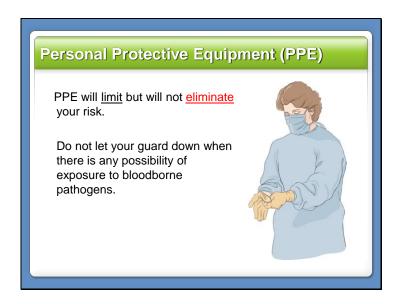


Use your mouse to drag each object to the correct method of disposal.



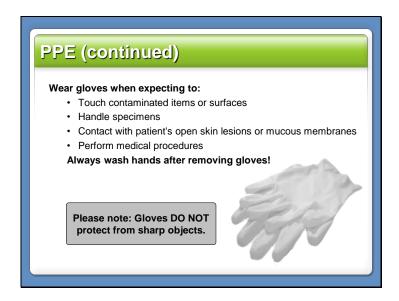
Utilize the following precautions if sending blood and body fluid specimens via the pneumatic tube system.

- Follow standard precautions when packaging the specimen.
- Package the specimen in a biohazard bag and securely close.
- Secure the specimen in the pneumatic tube system carrier by using foam liner.



The proper use of appropriate personal protective equipment can help <u>limit</u> but will not <u>eliminate</u> your risk of exposure to bloodborne pathogens.

Even when wearing protective equipment you cannot let your guard down when performing patient related tasks.

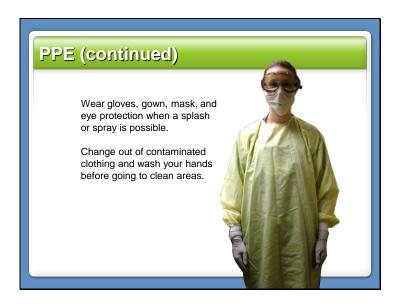


Wear gloves when expecting to:

- •Touch items or surfaces contaminated with blood or body fluids
- •Handle blood or body fluid specimens
- •Come in contact with patients' open skin lesions or mucous membranes
- •Perform medical procedures that access blood or other body fluids Always wash hands after removing gloves!

Please note: gloves DO NOT protect from sharp objects.

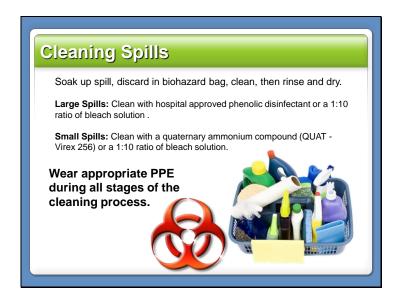
and the risk involved.



If there is a risk of body fluid splash or spray, you should wear gloves, gown, mask, and eye protection. Since blood might splatter, maximum protection is required. Wear protective clothing such as an apron, lab coat, or other barrier gown when personal clothing is likely to become soiled. The type of protection depends on the task

Remember to change out of contaminated clothing and wash your hands before going to clean areas.

If you have any questions about what PPE to use, when to use it, or how the PPE should be used for a specific task that involves blood and/or other body fluids, please contact your supervisor.

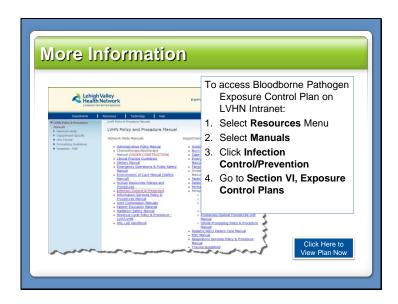


In the event of a spill of blood or body fluid, soak up fluid immediately with disposable absorbent material and discard in a biohazard waste bag.

For large spills clean the contaminated area with a hospital approved phenolic disinfectant or a 1:10 ratio of bleach solution.

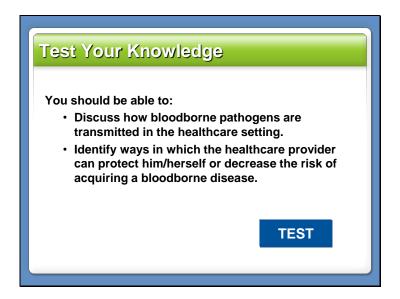
Small spills can be cleaned with a quaternary ammonium compound (QUAT - Virex 256) or a 1:10 ratio of bleach solution. Rinse and dry the area. Wear appropriate PPE during all stages of the cleaning process.

If broken glassware is present DO NOT use your hands. Clean up broken glass with the aid of tongs, forceps, and/or a broom and dust pan.



If you would like more information, please reference the Bloodborne Pathogen Exposure Control Plan. A Weblink to the plan is provided by clicking on the image.

A copy of the Bloodborne Pathogen Control Plan can also be found in the Infection Control and Prevention Manual located on the LVHN Intranet Website.



Thank you for participating in the Bloodborne Pathogens course. You should now be able to:

- •Discuss how bloodborne pathogens are transmitted in the healthcare setting.
- •Identify ways in which the healthcare provider can protect him/herself or decrease the risk of acquiring a bloodborne disease.

Click the Test button to continue on to the post-test. In order to pass this course, you must earn at least 80% on the test. Good luck!

Final Test

1. If you have an accidental injury with a sharp that is contaminated with patient blood, you would do ALL of the following:

You may select more than one answer.

(Multiple Response Question, 10 points, 1 attempt permitted)

Correct	Choice
Х	Complete an LVHN Incident Report and Certification of Significance form.
X	Report immediately to Employee Health Services (The Emergency Department if after hours)
	Report to Employee Health Services on your next working day
Х	Wash the site with soap and water

Feedback when correct: Correct, Complete the LVHN Incident Report and Certification of Significance form; Report immediately to Employee Health Services (The Emergency Department if after hours); Wash the site with soap and water.

Feedback when incorrect: Incorrect, whenever an accidental needle stick occurs: Wash the puncture site with soap and water.

Complete the LVHN Incident Report and Certification of Significance form. Report immediately to Employee Health Services (if Employee Health is closed, report to the Emergency Department).

2. Where would you locate the Bloodborne Pathogen Control Plan?

(Multiple Choice Question, 10 points, 1 attempt permitted)

Correct	Choice
	The Administrative Policy Manual
	The Environment of Care Manual
Х	The Infection Control and Prevention Manual

Feedback when correct: Correct, Please review the Infection Control and Prevention Manual.

Feedback when incorrect: Incorrect, The Bloodborne Pathogen Control Plan is located in the Infection Control and Prevention Manual. Please review the Infection Control and Prevention Manual.

3. From the list below, please select ALL of the ways you could expose yourself to HIV, hepatitis B, or hepatitis C viruses.

You may select more than one answer.

(Multiple Response Question, 10 points, 1 attempt permitted)

Correct	Choice
	Spilling blood on your fluid resistant gown or apron
Х	Spilling a patient's blood on your hangnail
Х	Re-capping a used needle
Х	Rubbing a rash on your ear with a bloody glove

Feedback when correct: Correct, A fluid resistant gown or apron protects you from a blood spill. Remember to remove the fluid resistant gown or apron carefully, before going to clean areas. Rubbing a rash on your ear exposes non-intact skin to blood. Spilling blood on a hangnail exposes open skin to blood. Never re-cap used needles!

Feedback when incorrect: Incorrect, You can expose yourself by spilling a patient's blood on your hangnail, re-capping a used needle, or rubbing a rash on your ear with a bloody glove. A fluid resistant gown or apron protects you from a blood spill. Remember to remove the fluid resistant gown or apron carefully, before going to clean areas. Rubbing a rash on your ear exposes non-intact skin to blood. Spilling blood on a hangnail exposes open skin to blood. Never re-cap used needles!

4. While hurrying, you collide with someone carrying a rack of blood tubes. You put on gloves, pick up the broken glass with forceps and use paper towels to wipe up the blood. What is your next step? Please select the best answer.

(Multiple Choice Question, 10 points, 1 attempt permitted)

Correct	Choice
	Wipe the area again with clean materials
Х	Clean the area with a hospital approved phenolic disinfectant or a 1:10 ratio of

bleach solution
Wipe the area with detergent and water

Feedback when correct: Correct, Your next step is to clean the area. You must clean large spills of blood or other potentially infectious body fluid with a hospital approved phenolic disinfectant or a 1:10 ratio of bleach solution.

Feedback when incorrect: Incorrect, Your next step is to clean the area. You must clean large spills of blood or other potentially infectious body fluid with a hospital approved phenolic disinfectant or a 1:10 ratio of bleach solution.

5. Wear gloves when expecting to:

Select all that apply.

(Multiple Response Question, 10 points, 1 attempt permitted)

Correct	Choice
Х	Touch items or surfaces contaminated with blood/body fluids
Х	Handle Blood/body fluid specimens
Х	Come in contact with patients' open skin lesions or mucous membranes
Х	Perform medical procedures that access blood or other body fluids
	Shake hands

Feedback when correct: Correct, Wear gloves when expecting to do all of the actions listed except shaking someone's hands.

Feedback when incorrect: Incorrect, Wear gloves when expecting to do all of the actions listed except shaking someone's hands.

6. Examples of non-intact skin include:

Select all that apply.

(Multiple Response Question, 10 points, 1 attempt permitted)

Correct	Choice
X	Scratches
Х	Abrasions
Х	Sores
Х	Cuts
	Healed wound

Feedback when correct: Correct, All of these are examples of non-intact skin except a healed wound.

Feedback when incorrect: Incorrect, All are examples of non-intact skin except a healed wound.

7. Standard Precautions means that you should treat _____ fluids as infectious.

Correct	Choice
	Suspected HIV patient's
	Known HIV patient's
Х	Everyone's
	No One's

Feedback when correct: Correct, Standard Precautions means that you should treat everyone's fluids as infectious.

Feedback when incorrect: Incorrect, Standard Precautions means that you should treat everyone's fluids as infectious.

8. A biohazard bag warns that there is possible chemical waste in the bag. Is this statement true or false?

Correct	Choice
	True
Х	False

Feedback when correct: Correct, the biohazard symbol/bag is used as a warning for potentially infectious waste.

Feedback when incorrect: Incorrect, the biohazard symbol/bag is used to warn of potentially infectious waste not of chemical waste.

9. If there is a risk of body fluid splash or spray, what protective clothing should be worn?

Correct	Choice
	Gown only
Х	Gloves, gown, mask, and eye protection
	Gloves and gown
	Gown and mask

Feedback when correct: Correct, You should were gloves, gown, mask, and eye protection. Maximum protection is required when there is the possibility of body fluid spray or splatter. Personal protective attire/equipment can protect you from coming in contact with blood and body fluid.

Feedback when incorrect: Incorrect, You should were gloves, gown, mask, and eye protection. Maximum protection is required when there is the possibility of body fluid spray or splatter. Personal protective attire/equipment can protect you from coming in contact with blood and body fluid.

10. The proper use of appropriate personal protective equipment can eliminate your risk of exposure to bloodborne pathogens.

Correct	Choice
	True
X	False

Feedback when correct: Correct, The proper use of appropriate personal protective equipment can help limit but will not eliminate your risk of exposure to bloodborne pathogens.

Feedback when incorrect: Incorrect, The proper use of appropriate personal protective equipment can help limit but will not eliminate your risk of exposure to bloodborne pathogens.