

BLOODBORNE PATHOGENS

Microorganisms that are present in human blood and other body fluids.

These microorganisms can cause infection and disease in persons who are exposed to blood containing pathogens.

HIV

hepatitis B (HBV)

hepatitis C (HCV)

hepatitis D (HDV)



What are Bloodborne Pathogens?

OFFICIAL: Pathogenic microorganisms that are present in human blood and cause disease in human. These pathogens include, but are not limited to, HBV, HIV and HCV

UNOFFICIAL: “Bugs” in other people’s blood that can make you sick



How Blood Borne Pathogens Enter the Body

- 📖 Eyes
- 📖 Nose
- 📖 Mouth
- 📖 Skin
- 📖 Sexual contact-greater in personal lives than childcare setting
- 📖 Exposure to body fluids, esp. during first aid treatment

There are several ways you could have blood borne pathogens get from someone else's body into yours....(might ask for participation)

Eyes, Nose, Mouth, Skin, Sex, touching body fluids.

But most frequent way in childcare is getting these germs on your skin by being exposed to blood during first aid. We will talk about how to deal with that a little later.

The spread of infection...

Need

- SOURCE of germ
- transportation (ROUTE) of germ
- HOST (vulnerable person)

PREVENTION = BREAK the CHAIN!!



Lets talk about the spread of infection: You need 3 things to pass an infection from one place or person to another. (discussion on breaking chain of infection) First, there must be a source of a germ. This can be on hands, blood, etc... Then you need a way of getting the germ from one place to another. Third, you need a HOST, or a person who will take the germ. If you can break the chain of events in any way, you can avoid infection.

BLOODBORNE PATHOGENS

SIGNIFICANT EXPOSURE is contact with infected blood or other body fluids through:

- Break in the skin (cut)
- Open wound
- Non-intact skin (chapped or abraded)
- Mucous Membranes
- Percutaneous injury or penetrating sharps-related event

"Parenteral": This definition includes human bites that break the skin, which are most likely to occur in violent situations such as may be encountered by prison and law enforcement personnel and in emergency rooms or psychiatric wards.

Hepatitis and HIV

Hepatitis:

Several Types:

Hepatitis A:

Hepatitis B:

Hepatitis C:

Hepatitis D:

Hepatitis E: Rare in US

There are several types of Hepatitis, but today we will talk mostly about Hepatitis B. As you can see, Hepatitis A and B are the most common. Type A is mostly from food, so we will concentrate on Type B. Make it very general

During 1995–2006, hepatitis A incidence declined 90% to the lowest rate ever recorded (1.2 cases per 100,000 population). Declines were greatest among children and in those states where routine vaccination of children was recommended beginning in 1999. An increasing proportion of cases occurred in adults.

During 1990–2006, acute hepatitis B incidence declined 81% to the lowest rate ever recorded (1.6 cases per 100,000 population). Declines occurred among all age groups but were greatest among children aged <15 years.

Following a peak in the late 1980s, incidence of acute hepatitis C declined through the 1990s; however, since 2003, rates have plateaued, with a slight increase in reported cases in 2006. In 2006, as in previous years, the majority of these cases occurred among adults, and injection-drug use was the most common risk factor.

Interpretation: The results documented in this report suggest that implementation of the 1999 recommendations

for routine childhood hepatitis A vaccination in the United States has reduced

Hepatitis B

Transmitted by injections, blood transfusions, contaminated needles and syringes, sexual contact

Identified by blood test

No cure

Vaccine available to prevent Hep B



Hepatitis

📖 Inflammation of liver

📖 Symptoms:

- 📖 Jaundice (Yellow eyes, skin)
- 📖 Abdominal pain
- 📖 Fever or vomiting
- 📖 Dark Urine
- 📖 Fatigue



Symptoms of Hepatitis B

- ❏ Flu-like, fatigue, loss of appetite
- ❏ Fever, joint pain
- ❏ Liver problems: yellow skin/eyes, dark urine



Hepatitis B Vaccine

Options:

take vaccine or sign declination form

Vaccine:

3 shots over 6 months

95% effective and few side effects

Good for 10 years

Include local procedures; who pays for each installation.

HIV Human Immunodeficiency Virus

Causes AIDS; HIV attacks immune system, body can't fight infection

No vaccine, high fatality rate

Antiretrovirals helpful

Primarily sexual, blood contact, BUT

Employees providing personal care (changing diapers, etc), first aid are at risk

Define more; what tasks increase the risk? ? Insert a slide that defines tasks associated w/ bbp exposure

(I don't feel that this slides need more definition. I think there is a little to much info and not quite as basic as it could be. I wouldn't include antiretrovirals)

What Can We Do?



Universal Precautions

- Universal Precautions
- Universal Precautions



Universal Precautions

- Universal Precautions
- Universal Precautions



Universal Precautions

- Universal Precautions
- Universal Precautions

Repetition is the key to learning just as Universal Precautions is the key to reducing and/or preventing BBP exposure/infection.

Universal Precautions

- ☞ All human blood and body fluids are possibly contaminated with blood borne pathogens: Hepatitis, HIV
- ☞ Work practice: use precautions, sharps containers, bag “dirty” items, handwashing
- ☞ Blood Borne Pathogen Standard from OSHA applies to any worker that may be exposed to BBP

Need more info on sharps containers (Col. Goins will get info); explain how to do ie dirty items (need from CHNs)

(Here at Eustis the centers would double bag any hazard waste and contact the Hazard waste manager at the Hospital for proper disposal. While waiting the “dirty items” are stored out of reach of children, usually in the locked laundry room and labeled.)

Protecting Yourself: Personal Protective Equipment - PPEs

- Hand hygiene
- Use of gloves, gown, mask, eye protection, or face shield, depending on the anticipated exposure
- Safe injection practices
- Proper disposal of sharps
- Handle potentially contaminated equipment or items in the patient environment in a manner to prevent transmission of infectious agents

USE gloves for the following activities in the childcare setting: (List)

(Diapering, cleaning up bodily fluids, doing first aid)

Equipment and Supplies to be Available

- ❏ Impermeable gloves (latex)
- ❏ One-way airway devices
- ❏ Sealable plastic bags
- ❏ Heavy-duty gloves (for conducting searches)
- ❏ Decontamination solution (household bleach)



HAND WASHING

Is the **SINGLE** most important
factor in Infection Control



Blood Borne Pathogen Response Kits

- ▣ Located where?
- ▣ Contain all items needed to clean up an area where blood or body fluids are present
- ▣ Kits identified as Blood Borne Pathogen Response Kit
 - Know the location of the kit in your area.

Is there a “Blood Borne Path Response Kit?”

(In my centers there are no specific BBP kits. They put their PPE in the first aid kits.)

IF you are exposed.....

- Wash exposed area immediately with soap and running water for 20 minutes
- Report to your supervisor right away
- Report for medical attention for follow-up

Describe in detail what to do.....include info on child; if had hx hiv, hep, where blood came from

Cleaning area, reporting to supervisor then Occ Health so it is doc as a work rel. exposure

Employee Responsibilities

- BBP training in orientation; yearly after that
- Know when you may be exposed
- Use Standard Precautions/PPE when necessary
- Report potential BBP exposure to supervisor



