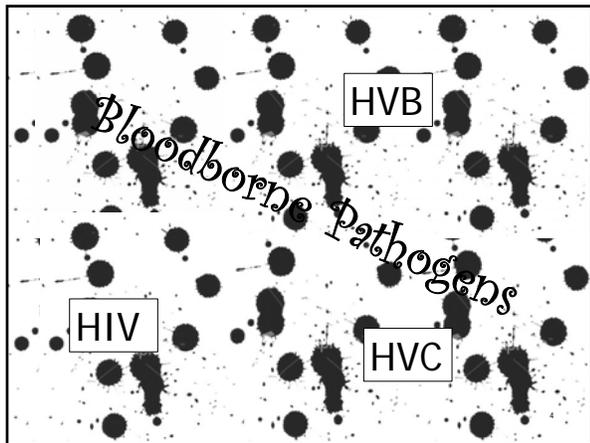
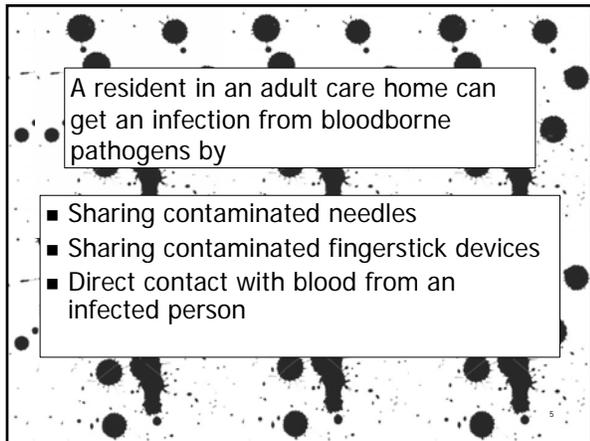


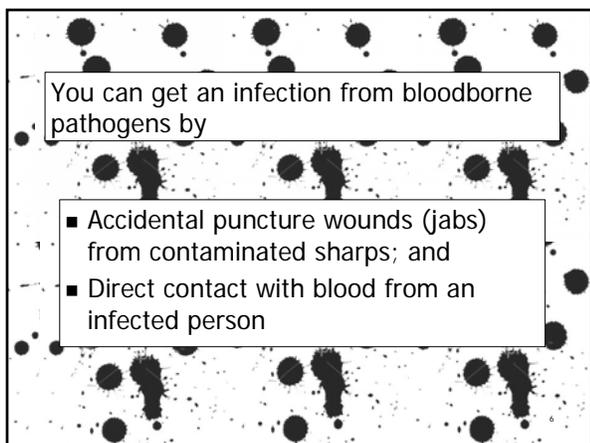
	Infection Control in Adult Care Homes
	Section 5 Bloodborne Pathogens

	Objectives
	<ul style="list-style-type: none"> ■ Define bloodborne pathogens and describe three examples of bloodborne pathogens – Hepatitis B virus, Hepatitis C virus, and Human immunodeficiency virus. ■ Describe the role of the Occupational Safety and Health Administration (OSHA) and the Centers for Disease Control and Prevention (CDC) in infection prevention.

	Objectives
	<ul style="list-style-type: none"> ■ Relate the concept of the chain of infection with bloodborne pathogens. ■ Describe the prevention of bloodborne pathogen transmission during blood glucose (sugar) monitoring and administration of insulin to residents in adult care homes. ■ List guidelines for point of care testing regarding blood glucose (sugar) testing.







Recall



- Sharps are devices that have corners, edges, or projections that can cut or pierce skin
- Sharps often used in adult care homes include syringe needles, fingerstick devices, and razors

7

Occupational Safety and Health Administration
(OSHA)

- Agency of the federal government
- In charge of protecting workers while at work
- Sets safety standards in the workplace

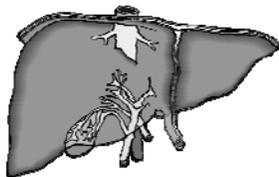


Bloodborne Pathogen Standard

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Hepatitis

Is a disease of the liver and often caused by viruses



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Hepatitis B

A contagious disease of the liver caused by hepatitis B virus (HBV)



- Usually spread when blood, semen, or another body fluid from a person with HBV enters the body of someone who is not infected.
- Through sexual contact and sharing of needles, syringes, or other drug-injection equipment

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Hepatitis B

In adult care homes, HBV can spread by sharing

- Infected needles
- Syringes
- Fingerstick devices or
- Blood glucose monitors



among residents during diabetic care

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7 DAYS!!!

HEPATITIS B VIRUS CAN LIVE OUTSIDE THE BODY ON EQUIPMENT AND ON SURFACES FOR SEVEN DAYS. IT CAN INFECT OTHERS DURING THIS TIME

July						
Sun	Mon	Tues	Wed	Thur	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

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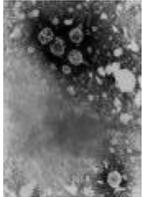
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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

7 DAYS!!!

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Hepatitis B Virus (HBV)

- Causes Hepatitis B, a disease of the liver
- About 1/3 of persons infected with HBV do not show symptoms
- Even though they do not show symptoms, they can still infect you



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GREAT NEWS...

The **GREAT** news is that there is a vaccine that is available to prevent you from getting Hepatitis B.



The **BEST** way to prevent Hepatitis B infection is by getting the Hepatitis B vaccine

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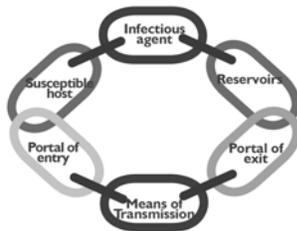
Other Bloodborne Pathogens

- Hepatitis C virus causes a contagious liver disease called Hepatitis C
- HIV attacks the immune system and is the virus that can cause AIDS

There are currently no Hepatitis C or HIV vaccines

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Recall



The Chain of Infection

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Bloodborne Pathogens

- 1st Link – infectious agents are HBV, HCV, HIV
- 2nd Link – reservoir is the person who is infected, specifically blood



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Bloodborne Pathogens

- 3rd Link – portals of exit are cuts, open sores, needles, lancets
- 4th Link – mode of transmission is blood by direct contact (contact with blood) or by indirect contact (needles, lancets, syringes, blood glucose meters, care worker's hands)



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Bloodborne Pathogens

- 5th Link – portals of entry are open sores, wounds, puncture sites from injections and lancets)
- 6th Link – susceptible host is a person who is not infected but at risk for infection (residents and care workers who do not practice Standard Precautions)



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High Risk Resident

A resident is at a higher risk for getting HBV, HBC, and HIV if the resident.....

- Is tested using fingerstick devices
- Receives injections

A resident who has diabetes mellitus



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Diabetes Mellitus

- Also called diabetes or sugar diabetes
- Common disease
- Caused by body's inability to use glucose, in the blood, for energy
- Usually requires blood glucose checks
- May or may not need insulin injections



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Blood Glucose Monitoring and Insulin Administration

- Assisted monitoring of blood glucose and insulin administration and
- Self-monitoring of blood glucose and insulin administration

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Blood Glucose Monitoring

- Tests resident's level of glucose (sugar) in blood
- Pricks skin with lancet and places drop of blood on test strip
- Test strip is placed in machine and blood glucose (sugar) level shows up on screen
- Depending on doctor's orders or level of blood glucose (sugar), the resident may or may not receive a dose of insulin



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Point of Care Testing (POCT)

Common practice in health care settings

- Care workers monitor residents at the bedside
- Quick, easy, provides useful info
- Example – blood glucose monitoring at home



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Blood Glucose Meter

- Measure a resident's blood glucose level
- Should be assigned to a single resident and not shared
- Used by millions of people a day
- Smaller, faster, and more accurate
- Very important to a diabetic resident's health



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Blood Glucose Meter

HBV, HCV, and HIV can get onto blood glucose meters even if you do not see any blood.

- If shared, device must be cleaned and **disinfected after every use**, based on manufacturer's instructions
- If manufacturer does not state instructions on how to **disinfect**, then it should not be shared

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	Blood Glucose Meter
	<p>HBV, HCV, and HIV can get onto blood glucose meters even if you do not see any blood.</p> <ul style="list-style-type: none"> ■ Blood glucose meters, whether shared or not, must be cleaned after each use, based on manufacturer's instructions ■ Any agent used to clean or disinfect the device must be approved and used exactly per instructions, i.e., leave on device for 5 minutes

	Blood Glucose Meter
	<p>A SIMPLE GUIDELINE FOR SAFE CARE: blood glucose meters should be assigned to individual residents and <u>not shared</u></p>
	

	<p>Devices used to prick the skin and obtain drops of blood for testing</p> <p>Fingerstick devices use a lancet to jab the skin</p>
<p>Two main types of fingerstick devices:</p> <ul style="list-style-type: none"> ■ Those that are designed for reuse on a single person ■ Those that are disposable and for single use 	

Re-usable Devices for a Single Person

- Used for residents who self-monitor
- NEVER shared with other residents
- Often resemble a pen
- Lancet removed, discarded, and replaced after each use
- Label with resident's name
- Store with resident's blood glucose monitoring equipment/supplies



Single-use, Auto-disabling Fingerstick Devices

- Typically used for assisted monitoring
- Used once and then discarded
- Has a single-use lancet that retracts after use



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Outbreaks. . .

- Outbreaks of Hepatitis B infection in health care settings have been caused by sharing of blood glucose meters and fingerstick devices among residents
- Critically important that you know what you are doing and know what you are using when you perform fingersticks on your residents and work with blood glucose monitors
- Your knowledge is key to preventing the spread of bloodborne pathogens in the adult care home

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Point of Care Testing Guidelines for Blood Glucose Testing

- Wear gloves
- Change gloves between residents
- Change gloves immediately if they touch blood
- Perform hand hygiene afterwards
- Discard lancet in sharps container



Point of Care Testing Guidelines for Blood Glucose Testing

- Never, ever reuse lancets
- Never, ever recap, bend, or break lancets
- Never share blood glucose meters if designed for single resident use
- If blood glucose meter designed for use on multiple residents, follow manufacturer's instructions

Point of Care Testing Guidelines for Blood Glucose Testing

- Clean up/disinfect blood contaminated surfaces immediately
- Do not carry supplies in pockets
- Only carry needed supplies to bedside
- If you jab your finger IMMEDIATELY follow your facility's exposure policy

	<h2 style="text-align: center;">Insulin Administration</h2>
	<p>May be:</p> <ul style="list-style-type: none"> ■ Administered to the resident by the trained medication aide ■ Self-administered by the resident <p>Methods:</p> <ul style="list-style-type: none"> ■ By injection using an insulin pen ■ By using a syringe, with insulin withdrawn, from a multiple-dose vial <p style="text-align: right; font-size: small;">37</p>

	<h2 style="text-align: center;">Insulin Administration Using Insulin Pen</h2>
	<ul style="list-style-type: none"> ■ Injector devices shaped like an ink pen ■ Has an insulin reservoir or cartridge that may have enough for a single dose or several doses ■ Are intended for use by single resident and not shared, labeled with name ■ Needle changed after each injection  <p style="text-align: right; font-size: small;">38</p>

	<h2 style="text-align: center;">Insulin Administration Using Syringe and Multiple-dose Vial</h2>
	<ul style="list-style-type: none"> ■ Uses insulin syringe and multiple-dose vial of insulin ■ Multiple-dose vials should only be used for a single resident, labeled ■ If multiple-dose vials used for multiple residents, stored and prepared in special area  <p style="text-align: right; font-size: small;">39</p>

Insulin Administration Using Syringe and Multiple-dose Vial

- Always enter multiple-dose vials with new needle and new syringe after cleaning vial top with alcohol
- Needles and syringes never be used to administer insulin to more than one resident



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The CDC is concerned. . .



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**** CRITICALLY IMPORTANT ****

**Only use syringes, needles, lancets
ONE TIME AND ONE TIME ONLY**

**Dispose of them in sharps container
IMMEDIATELY AFTER USE**

**** CRITICALLY IMPORTANT ****

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Check for Understanding

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