Universal Precautions

Infection Control
What you need to know to be safe
What is Universal Precautions?

- The Center for Disease Control defines Universal Precautions as...

  “A set of precautions designed to prevent transmission of Human Immunodeficiency virus (HIV), Hepatitis B virus (HBV), and other blood borne pathogens when providing first aid or health care.”
How Infection is spread

- **Pathogen** – The microorganism (germ) that causes the disease

- **Source** – Where the germ lives (person or animal)

- **Mode** – How the germ travels from host to host (direct contact, airborne, etc.)

- **Entry** – Any body opening on the susceptible host that allows the germ to enter
Who are most Susceptible to Infection?

- The very young, or very old
- Persons with serious health conditions, such as cancer or diabetes
- Persons who are under stress for long periods of time
- Those who don’t get enough sleep

All of these conditions can depress the body’s natural immune system, therefore allowing the infection to spread and cause more harm than to those with healthy immune systems.
Ways We Spread Germs

1. Airborne
2. Direct Contact Route
3. Fecal-Oral Route
4. Blood Contact Route
Ways We Spread Germs

• 1. Airborne or “the respiratory route”
  • Examples: TB, Colds, Chicken Pox, Influenza

• 2. Direct contact route
  • Spread by directly touching an infected area or body fluid.
  • Examples: Conjunctivitis or “pink eye”, MRSA, C-Diff, Group A Strep (Strep throat), Group B Strep, which is the most common cause of life-threatening infections in newborns.
Ways We Spread Germs

3. Fecal-oral route
   - These germs enter the body from items that have unintentionally infected with stool.
     - Examples: Hepatitis A, Rotavirus or “stomach flu”, Hand, Foot, and Mouth disease.

4. Blood Contact Route
   - An individual must come into contact with the infected blood or body fluids.
     - Examples: HIV/AIDS, Hepatitis B
Bloodborne Pathogens

• **Blood borne Pathogens** are microorganisms in the blood or other body fluids that can cause illness and disease.

  • These pathogens are passed from person-to-person with exposure to infected body fluids or blood.

  • All body fluids other than sweat and tears should be considered a potential source of infection
HIV/AIDS

- HIV weakens the immune system so that affected people cannot effectively fight infections.

- Spread from infected persons during unprotected sex

- Infected IV drug users when sharing needles/syringes

- Women infected may pass the HIV virus to the unborn child
  ~ ~ HIV may be passed through breast milk

- Blood to blood transmissions
What is Hepatitis?

Hepatitis is a medical condition defined by the inflammation of the liver.

There are 3 main types of Hepatitis:

- Hep A
- Hep B
- Hep C
Hepatitis A

- Found in the feces of infected persons.
- Usually spread from person to person by putting something in the mouth that has been contaminated with the feces of an infected person.
- Is more easily spread under poor sanitary conditions and when good personal hygiene is not practiced.
- People can get Hepatitis A by drinking contaminated water, or by eating raw or undercooked shellfish harvested from contaminated water. Fruits and vegetables or other foods can also become contaminated during handling.
Hepatitis B

- Hepatitis B occurs when the HBV virus enters the body, multiplies in the blood and infects the liver.

- Can result in a mild illness, chronic infection, or permanent liver damage.

- Deaths from HBV can occur due to liver failure.

- Hepatitis B is the second known human cancer causing agent.
  - Hepatitis B is the cause of up to 80% of all liver cancers.
Hepatitis C

- About 70% of those infected become carriers of Hep C

- Approximately 3.9 million people in the US are infected with HCV.

- IV drug use account for roughly 60% of HCV infections.

- There is currently no vaccination for Hep C
Symptoms of Hepatitis

• Signs and symptoms are:
  • Weakness, fatigue
  • Loss of appetite, nausea, abdominal pain
  • Fever and headache
  • Abdominal swelling (ascites)
  • Occasionally yellowing of the skin and eyes (Jaundice)

• Some individuals may show no symptoms but are still capable of spreading the virus to others.
  • These individuals are chronic carriers and are at a high risk for liver damage

• 10% of individuals will become chronic carriers
Hepatitis B vaccination is a routine immunization for children and recommended for adults who:

- Routinely come into contact with blood or potentially infectious fluids during their work day.
- Live in a household with someone who is infected
- Are sexually active, especially with more than one partner.
- Use needles to inject drugs.
How Blood borne Pathogens are NOT Spread

- Casual Contact with infected individuals
- Holding or hugging infected individuals
- Sharing food, utensils, clothing, linens
- Coming into contact with body fluids that doesn’t contain visible blood.
- Shaking hands
- Bathrooms, sinks, or drinking fountains
- Mosquitoes
Universal Precautions

- The rules and principles of infection control are the same no matter what infectious agent is the cause for concern.

- Components of Universal Precautions include:
  - Personal Protective Equipment
    - Wearing gloves, gowns, eye protection
  - Hand washing
  - Decontamination
    - Cleaning methods, spill clean up, disinfectant spray
  - Waste Disposal
    - Sharps containers, Biohazard bags, double bagging
Personal Protective Equipment

- Types of Personal Protective Equipment (PPE)
  - Gloves
  - Masks
  - Face shields
  - Gowns
  - Aprons

- Gloves must be discarded after each use.

- Hands must be washed each time gloves are discarded
Handwashing

- **Hand washing is the most effective way to reduce the spread of disease**

- Hand washing review
  - **Use** soap. Liquid is the best and warm running water.
  - **Rub** hands together vigorously for at least 20 seconds.
  - **Remember** all surfaces including thumbs, wrists, rings, between fingers, and under nails.
  - **Rinse** hands well, letting water run from wrists to fingers.
  - **Dry** hands well with paper towel then turn off faucet with a clean paper towel.

- Bar soap is not recommended as bacteria can grow on the bar and in the soap dish.
Hand Sanitizer

- Preferred method for hand hygiene in situations where there is no sink
- Alcohol based product. Use friction to all surfaces of hands until dry (at least 20 seconds)
- Alcohol based hand rubs are less damaging to skin than soap and water
- Requires less time than hand washing, and dispensers can be placed at the point of care (more accessible than hand washing)
When to Clean your Hands?

- Wash your hands:
  - When you arrive at work
  - Before and after giving medications
  - Before beginning first aid or any care
  - Before and after using the restroom
  - Before and after donning disposable gloves
  - Before handling clean equipment or after using dirty equipment
  - Before and after eating
  - Before handling food
  - Before leaving the building.

- When in doubt, it is always better to wash your hands.
Sharps

- All sharps should be disposed of in a container that is:
  - Closeable
  - Puncture resistance
  - Leak proof
  - Labeled with a biohazard label

- All needles, broken glass, etc, should be discarded in this container.

- Needles or other contaminated sharps should never be bent, recapped, purposely broken, or removed from sharps container.
Blood and Body Fluids

- Treat all human blood and potentially infectious body fluids as contagious.

- Potentially infectious body fluids are:
  - Blood
  - Vaginal secretions
  - Semen
  - Any fluid you can’t identify
  - Fluid that has visible blood in it

- Precautions should be taken when handling stool, urine, nasal secretions, and vomit.
Different Types of Waste

- Soiled waste
  - Diapers
  - Used band-aids (not saturated with blood)
  - Discarded gloves and other PPE (not contaminated with blood)
  - Vomit

- There is no special disposal for these items.
Different Types of Waste

• Regulated (biohazard) waste:
  • Items that are saturated with fluids containing blood
  • Items caked with dried blood

• Special regulations must be followed when disposing of regulated or biohazard waste.
Waste Disposal

- Items that are visibly contaminated or are potentially infectious must be disposed of in a sealed and doubled red biohazard bags before being discarded.

- Regulated (bio-hazard) waste is defined as:
  - Liquid or semi liquid blood or other potentially infectious material.
  - Contaminated items that would release blood and other potentially infectious materials if compressed.

  Items caked with dried blood or other potentially infectious material that are capable of releasing this materials during handling.

  Regulated waste goes in a biohazard bucket in the nurse’s office.
What We Can do to Help Prevent the Spread of Infections

- Cough or sneeze into your elbow
- Eat a healthy diet
- Get appropriate amount of sleep
- Wear a mask and gloves as needed
- Maintain good personal hygiene
- Keep areas of broken skin covered
- Don’t come to work when ill (temp >100)
- Follow Universal Precautions at all times along with Agency policies and procedures
- Report any exposure to infection, blood or body fluids immediately
Exposure Incident

- Any incident where an individual's eye, mouth, mucous membranes, and/or non-intact skin (already open area or an area is punctured with a contaminated needle or sharp object) comes in contact with blood or other potentially infectious materials that result from the performance of an employee's duties.

- **Example:** A nurse assisting in a surgical procedure when she is sprayed in the eye with an individual's blood or body fluid.

- **Example:** A direct care worker is assisting with disposal of an individual’s diabetic supplies when they accidentally poke themselves with a used needle.
Link's Post Exposure Policy

- First, wash the affected area for 15-20 minutes with large amounts of soap and water, then report the incident to your supervisor.
- Fill out first report of injury and see Amy Strong, Link Associates RN, or Cindy Spann if Amy is not available.
- If needed, will see Link’s Occupational Health physicians and will determine treatment.
- Confidentiality will be maintained as medical records are kept confidential.
- Counseling on how to avoid future exposure will be provided.
- You may obtain a copy of Links exposure control plan from your supervisor or from the nurse.
Ways to Reduce Risk of Exposure

- Follow Link’s Infection Control Policy, Section Environment/Safety, Policy 6; Infection Control (provided today in handout)
- Attend all trainings as assigned
- Follow biohazard waste collections procedures
- Utilized PPE
“To assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, information, education and training in the field of occupational safety and health”

**To receive a copy of OSHA guidelines, go online at www.OSTA.gov or request a copy from the agency nurse**
“Dedicated to protecting health and promoting quality of life through the prevention and control of disease, injury, and disability. We are committed to programs that reduce the health and economic consequences of the leading causes of death and disability, thereby ensuring a long, productive, healthy life for all people”.

**www.CDC.gov**
Mobility Assistance
And Employee Safety
Purpose of Good Body Mechanics

- Makes the best use of strength and avoids fatigue
- Prevents injuries such as back strain and/or torn muscles and ligaments
- Reduces chance of long term pain associated with injuries
General Rules of Good Body Mechanics when lifting

Use as many large muscles as possible. Examples:

- Use both hands rather than one when lifting a heavy object
- Use the large muscles in your legs when lifting heavy objects to reduce strain on your lower back
Continued

- Stand straight
- Place feet apart the same width as your shoulders
- Hold objects close to your body when lifting
- Push the object; don’t pull unless absolutely necessary
- Avoid twisting
- Get help if object is too heavy
Link has a No Lifting Policy

For consumers that have difficulty or cannot ambulate on their own, assistive devices are to be used.

Examples:
- Gait Belt
- Mechanical and Lifting devices
- Height adjustable beds
- Toilet seat risers
- Walkers
Proper Posture:

- Keeps bones and joints in the correct alignment so that muscles are being used properly.
- Helps decrease the abnormal wearing of joint surfaces that could result in arthritis.
- Decreases the stress on the ligaments holding the joints of the spine together.
- Prevents the spine from becoming fixed in abnormal positions.
- Prevents fatigue, allowing the body to use less energy.
- Prevents strain, backache and muscular pain.
Good body mechanics are based on good posture. This means the spine is in a "neutral" position – not too rounded forward, not arched back too far.
~ Hold your head straight, balanced evenly between your shoulders and with your chin parallel to the floor.
~ Keep shoulders, hips, and knees level and your feet and knees pointed straight ahead.
~ From the side, your ear, shoulder, hip, knee, and ankle should be centered along an imaginary straight line.
Sway Back
Lumbar Lordosis
Thoracic Kyphosis
Forward Head
Good Posture
Driving

- Use a back support (lumbar roll) at the curve of your back.
- Your knees should be at the same level or higher than your hops.
- Move the seat close to the steering wheel to support the curve of your back.
- The seat should be close enough to allow your knees to bend and your feet to reach the pedals.
Standing

Standing work, including bending, lifting, carrying and reaching can be tough on the back – especially if proper body mechanics are not being used

- Avoid standing in one position for prolonged periods of time
  - Be aware of your posture
  - Make sure the surface you are standing on is firm and level
  - If possible, lean on a solid support to help reduce fatigue during long periods of standing
Sleeping

• Sleep on a firm mattress
• Avoid sleeping on your stomach or with your head elevated on an oversize pillow
• The side or back are the best positions for maintaining a neutral position
• Use a pillow that allows you to keep your head aligned with the rest of your body
Musculoskeletal Injury Risk Factors

- Risk factors for injury
  - Awkward Postures
  - Lifting heavy loads
  - Excessive pushing/pulling
  - Frequent/repeated lifting/moving
  - Tasks of long duration
  - Reaching
Environmental Conditions That Cause High Risk

- Slip, trip and fall hazards
  - loose rugs, wet floor, snow/ice
- Uneven work surfaces
- Space limitations
  - too many items in the room
Symptoms of possible injury

- Low back and shoulder injury with pain
- Pain that doesn’t go away
- Joint injuries
- Swelling

Multiple occurrences have a cumulative effect, usually the result of repetitive movements.
Consumer Safety when Transporting Persons in Wheelchairs

- Always push wheelchair from behind except when going in and out of elevators, doorways with thresholds, and up and down curbs.

- Always set brakes when:
  - Assisting a person into and out of a wheelchair
  - When the wheelchair is to remain stationary
Safety when Transferring a Consumer using a Gait Belt

- Ask the consumer, “How can I assist you?”
- Never transfer a consumer who cannot bear weight – use an assistive device
- Always tell the consumer what you will be doing
- Get assistance if needed
- Do not move a consumer by supporting their arms, underarms or shoulders
- Be gentle
Gait Belt Safety

- Move slowly, allowing consumer to maintain control at each step
- Stand on their weaker side
- Support consumer if they fall: assist them to the floor slowing, holding onto the gait belt to lower them slowly and safely to the floor – do not attempt to move the person yourself without proper assessment for injury.
Wrapping up

- Questions?