

Infection Risk Prevention Training Presentation

November 2023



Liberty
Healthcare
Corporation

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DEPT. OF HEALTH AND HUMAN SERVICES



Introduction and Objectives

The purpose of this presentation is to:

- Educate healthcare providers on infection risk among vulnerable populations.
- Describe steps providers can take to address and prevent infection.
- Identify when it is appropriate to contact a medical health care professional.
- Reduce infection rates among those at risk.



Overview

- How Infections Spread:
 - Source
 - Susceptible Persons
 - Transmission
 - Chain/Spread of Infection
- Common Infections in the CDD/AD Population:
 - Pressure or Decubitus Ulcers
 - Pneumonia
 - Urinary Tract Infection (UTI)
 - Sepsis
- Summary
- Test and Q&A Session Information



Sources of Infection

- An infectious agent or germs refers to a virus, bacteria, or other infectious microbes.
- Common sources of germs include:
 - Participants
 - Homecare workers
 - Visitors and household members

People may or may not have symptoms of an infection and still be able to pass the germs to others.
- Environmental sources of germs include:
 - Dry surfaces: medical equipment, countertops, tables, doorknobs, etc.
 - Wet surfaces: moist environments, faucets, sinks, wound dressings, etc.
 - Indwelling devices: catheters, PEG tubes, etc.
 - Dust



Susceptible Persons

- **Age:** very young and elderly.
- **Medical conditions:** diabetes, cancer, organ transplantation that can decrease the immune system's ability to fight infection.
- **Medications:** antibiotics, steroids, and certain cancer-fighting medications can increase the risk of infections.
- Urinary catheters, tubes, and surgery increase the risk of infection and provide additional ways for germs to enter the body.
- Recognizing factors that can increase participants' susceptibility to infection allows providers to recognize risks and perform basic infection prevention measures to prevent infection from occurring.

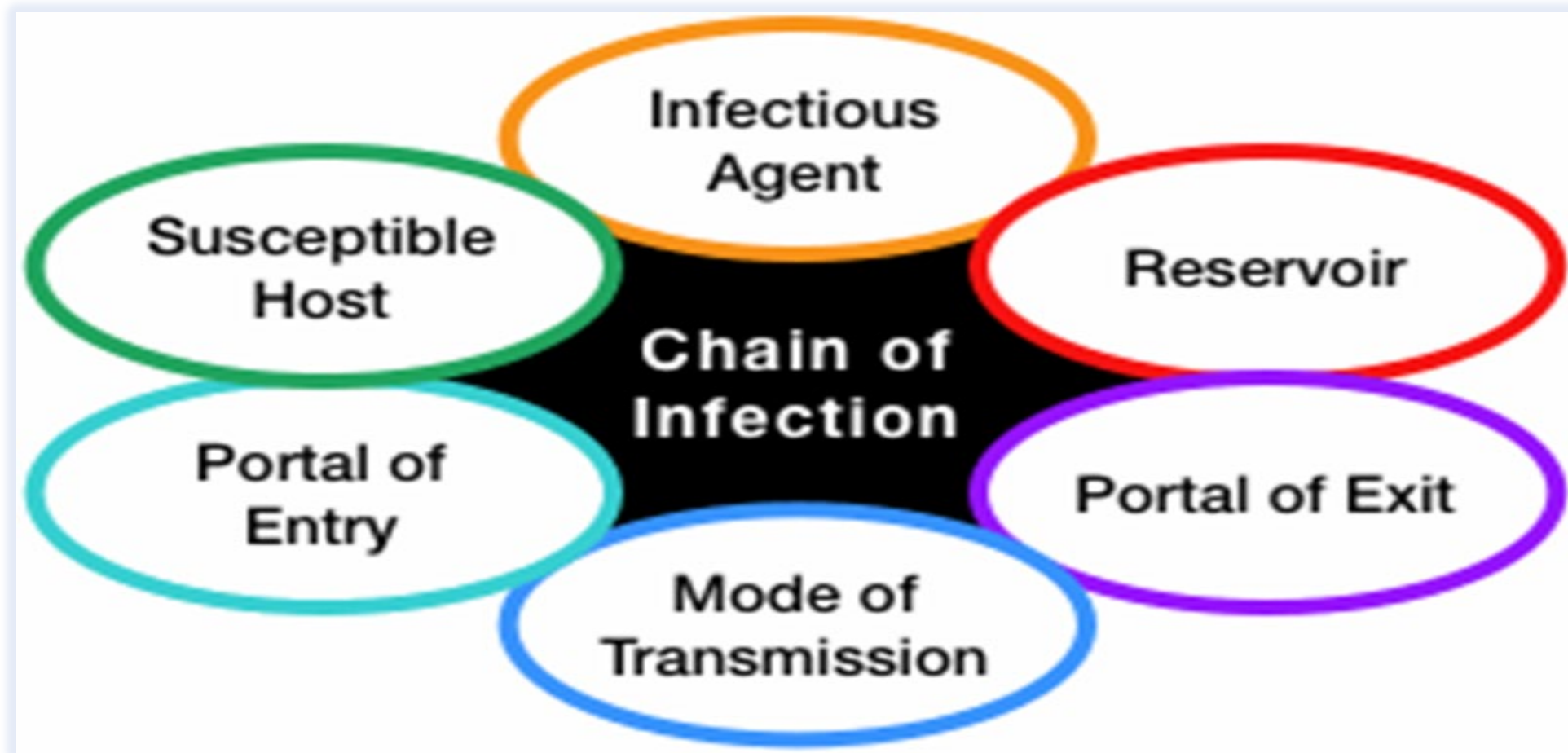


Infection Transmission

- Touch Contact:
 - Healthcare providers' hands become contaminated by touching germs present on medical equipment or high-touch surfaces and then carry the germs on their hands and spread to a susceptible person when proper hand hygiene is not performed.
- Sprays and splashes:
 - Infected person coughs or sneezes, creating droplets that carry germs short distances (within approximately six feet).
- Inhalation:
 - Airborne transmission can occur when infected patients cough, talk, or sneeze germs into the air.
- Sharps:
 - When bloodborne pathogens enter a person through a skin puncture by a used needle or sharp instrument.



Chain of Infection



Infections in the AD/TBI and CDD/DDAD Population

- Decubitus or Pressure Ulcers
- Pneumonia
- Urinary Tract Infection (UTI)

Sepsis can occur rapidly if any of these infections are not immediately and properly treated.



Decubitus Ulcers

- **Pressure sores:** Areas of damaged skin caused by staying in one position for too long.
- **Common sites:** Ankles, back, elbows, back/side of head, heels and hips, tail bone, and shoulder blades.
- **Causes:** Decreased blood flow to tissues from pressure, friction, and shear.



Decubitus Ulcers – Those At Risk

- Bedridden.
- Incontinence.
- Lack of sensory perception (spinal cord injuries).
- Wheelchair use.
- Poor nutrition/hydration.
- Inability to change position.
- Medical conditions affecting blood flow (diabetes, vascular disease).

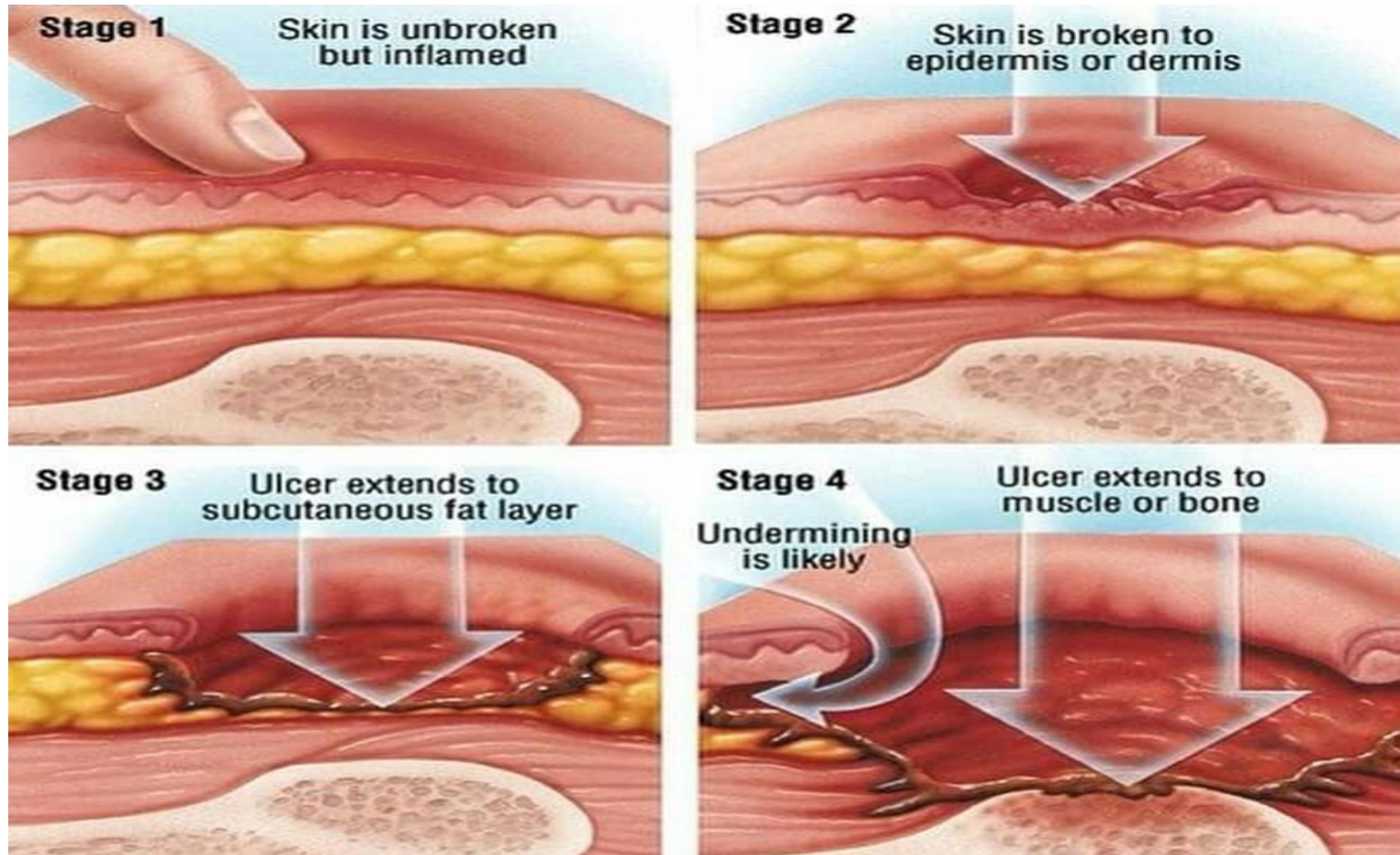


Decubitus Ulcers – Prevention

- Keep skin clean and dry.
- Change position every two hours.
- Use pillows, cushions, special mattresses, or tilted wheelchairs.
- Elevate the head of the bed (no more than 30 degrees).
- Use moisture barrier creams.
- Daily skin inspection.



Decubitus Ulcer Stages



Decubitus Ulcers

- **Symptoms:** Unusual changes in skin color or texture, swelling, pus-like drainage, skin that feels cooler or warmer to touch, tenderness.
- **Complications:** Cellulitis, bone and joint infections, sepsis.
- **When to contact a physician:** When you notice warning signs of a bedsore, you should change the position to relieve the pressure, and if there is no improvement in 24 to 48 hours, it is time to contact the physician.
- **Seek immediate medical care:** When signs of infection, such as a fever, drainage, bad odor, changes in skin color, warmth, or swelling around a sore.
- Utilize the Braden Pressure Ulcer Risk Assessment (see next slide).



Braden Pressure Ulcer Risk Assessment

Braden Risk Assessment Scale					
Sensory/ Mental	Moisture	Activity	Mobility	Nutrition	Friction/ Shear
1. Totally limited	1. Constantly moist	1. Bedfast	1. 100% immobile	1. Very poor	1. Frequent sliding
2. Very limited	2. Very moist	2. Chairfast	2. Very limited	2. < ½ daily portion	2. Feeble corrections
3. Slightly limited	3. Occasionally moist	3. Walks w/ assistance	3. Slightly limited	3. Most of portion	3. Independent corrections
4. No impairment	4. Dry	4. Walks w/out assistance	4. Full mobility	4. Eats everything	
Total Braden Score _____ 15-16 Mild Risk 12-14 Moderate Risk <12 High Risk 15-18 is considered Mild Risk for those > 75 years					

Braden BI, Bergstrom N. Clinical Utility of the Braden Scale for Predicting Pressure Sore Risk, *Decubitus*, August 1989, 2: 44-51.



Pneumonia

- **Pneumonia:** An infection where the tiny air sacs in your lungs (alveoli) become inflamed.
- **Increased risk:** Weakened immune system; chronic health conditions
- **How the infection is acquired:**
 - **Community-acquired pneumonia (CAP).** Outside of hospital or healthcare facility.
 - **Healthcare-associated pneumonia.** Acquired at a healthcare facility (hospital, long-term care facility)
 - **Aspiration pneumonia.** Inhaled food, saliva, or vomit into your lungs.
 - Individuals with swallowing disorders can be at higher risk.



Pneumonia – Symptoms in the Elderly

- Feel weak or unsteady (increased falls).
- No fevers, temperatures may be lower than normal.
- Confusion or delirium.
- Changes in functional status, or inability to perform daily activities.
- Urinary incontinence.
- Lack of appetite.
- Worsening of existing health conditions.



Pneumonia – When to Contact a Physician

- Trouble breathing.
- Bluish-colored face, lips, or nails.
- Chest pain.
- Abnormal body temperature (high fever or lower than normal body temperature).
- New confusion, delirium, or changes in functional status.



Urinary Tract Infections

- **UTI** (urinary tract infection) is an infection of the urinary tract system.
- **The elderly:** Are susceptible to UTIs due to weaker immune systems, the bladder dropping down, reduced ability to control urination and bowel movements, and changes in personal hygiene due to cognitive decline or physical limitations (arthritis, COPD, stroke).



Urinary Tract Infections – Symptoms

- **Physical Symptoms of UTI:** Frequency and urgency, discomfort, pain in the lower abdomen, frequent touching themselves, cloudy, dark, or foul-smelling urine, new or worsening incontinence, fever, and chills.
- **Psychological Symptoms of UTI:** Sudden change in mental status, confusion, memory loss, trouble concentrating, lethargy, hallucinations, delusions, restlessness or agitation, violent behavior, or yelling.
- **Symptoms of a kidney infection:** Fever, chills, lower back pain or pain in the side of your back, nausea, or vomiting.
- **Untreated UTI:** Can develop into sepsis, resulting in high fever, rapid and irregular heartbeat, and septic shock resulting in a dangerous lowering of blood pressure; which can be fatal.



Urinary Tract Infections – Recommendations

- Notify the physician as soon as symptoms appear.
- Urine testing every few months.
- Hydration – water and cranberry juice.
- Showers instead of baths.
- Avoid sprays or powders near the genitals.
- Proper hygiene and wiping from front to back.
- Empty bladder when feeling the urge.



Sepsis

- **Sepsis and septic shock:** Can result from an infection anywhere in the body, such as decubitus, pneumonia, or UTIs.
- **Sepsis symptoms:** Confusion or disorientation, shortness of breath, high heart rate, fever, shivering or feeling very cold, extreme pain or discomfort, clammy or sweaty skin.
- **Sepsis is a medical emergency:** Requires rapid diagnosis and treatment. Worldwide, one-third of people who develop sepsis die.



Sepsis - TIME

When it comes to sepsis, remember
IT'S ABOUT TIME™. Watch for:



If you experience a combination of these symptoms: seek urgent medical care, call 911, or go to the hospital with an advocate. Ask: "Could it be sepsis?"

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sepsis.org





Tips for Service Coordinators & Providers

- Monitor participants for infections and contact their primary care doctor.
- Document infections, and phone calls or visits to the doctor's office.
- Make sure any treatment given is being utilized (i.e., prescriptions, creams, repositioning, etc.).
- Follow up to make sure the infection is resolved. Do not let the infection go unresolved.
- Contact your medical personnel or clinician if you need more assistance.



Summary

- The vulnerable have an increased susceptibility to infection and tend to have poorer outcomes when infected.
- The vulnerable may have altered presentations of infectious syndromes and necessitate greater attention to subtle clinical changes.
- Preventive actions and being aware of signs and symptoms will make the caregiver more attentive to when to seek medical intervention, to avoid a medical emergency such as sepsis.



What's Next?

- Please use this Survey Monkey link to answer a few short questions about the information you just obtained.
[Signs of Infection Quiz Survey \(surveymonkey.com\)](#)
- Please use this Survey Monkey link to post any questions you have regarding this presentation.
[Signs of Infection Q&A Session Survey \(surveymonkey.com\)](#)
- A one-hour Q&A session will be scheduled via virtual meeting. You will receive an invitation prior to this meeting.





Thank you! Any Questions?

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