Handwashing
The Key to Personal and Patient Protection From Infection

Learning Objectives
Following this segment, the participant will be able to:
- Cite the factors necessary for infection to occur
- Understand definitions of key terms
- Practice proper handwashing technique
- Cite the new CDC Hand Hygiene Guidelines

Definition of Terms
- Antibacterial
  - destroying or hindering the growth of bacteria
- Antimicrobial
  - preventing or destroying the development of microbes
  - kills viruses
Bacteria
- Bacteria
  - A living organism which can grow and reproduce under certain conditions
    - temperature
    - pH
    - oxygen

Virus
- A packet of genetic material surrounded by protein coverings
- Can not grow or reproduce outside the living host

Skin - Bacteria
- Skin is considered to be a body site
- Bacteria on skin differs at each anatomical site - resident flora
  - differs in individuals
    - diet
    - climate
    - customs
    - race
Skin - Bacteria

- *Transient flora*
  - presence is temporary
  - loosely attached can be easily removed
  - contain pathogenic bacteria

Infection Control

Definition - Infection Control

- Principles and practices designed to prevent and control the transmission of infection to patients and staff
Formula for Infection

Organism
- Bacteria
- Virus
- Fungi
- Parasite

Dose
- The infectious agent must be sufficiently virulent to cause illness in man
Virulence
- The ability of organisms to survive outside the reservoir or host

Mode of Entry
- Can occur in two ways-
  - Direct contact (actual physical contact with secretions that harbor infective organisms)
  - Indirect Contact (organism resides outside the reservoir and is transferred to another host)

Host Resistance
- The host must be susceptible before an organism is able to cause infection
- The healthier you are, the less susceptible you are
Putting It All Together

Chain of Infection

Body’s Natural Defenses - Skin

- Unbroken skin is the body’s first line of defense
- Organisms can **not** pass through
- Some of the skin’s normal secretions are bactericidal
Some Factors Effecting Host Resistance
- Age
- Drugs
- Immune Compromised
- Malnutrition
- Chronic Disease
- Trauma
- Smoking

Hand Antisepsis
- A process for the removal and destruction of transient microorganisms
- Antimicrobial soap or detergent or alcohol based handrub for 10-15 seconds

Handwashing Recommendations
- Arriving at and before leaving work
- Before and after patient contact
- Before and after eating
- After removing gloves
- After using restroom
- After coughing, sneezing, blowing nose
- Whenever hands are soiled or contaminated
Handwashing

- The physical process of removing soil and transient microorganisms from the hands
- Use plain soap and water - 10 to 15 seconds
- Use warm water

Handwashing Procedure

1. Wet hands
2. Apply soap
3. Rub all sides of hands, wrists, between fingers, under fingernails
4. Rinse
5. Dry

CDC Handwash Guidelines - 2002

- No antibacterials
- Alcohol - based foam or gel
- No artificial nails or extensions

<CDC, October 28, 2002>
Alcohol Based Products

Policy Development

No artificial nails or extensions

CDC/OSHA

- Health care workers with non-intact skin should have the area covered with a dressing, if the area is too large to cover, then the individual should not perform patient care activities that pose a risk.
Lotions

- In closed dispensers
- Wash before refilling
- Use only at the end of the workday

Gloves are NOT a Substitute for Handwashing

Handwashing is your Major Protection Method
Thank you