

## **Infection Control Update 2010**

**Satellite Conference and Live Webcast  
Wednesday, April 28, 2010  
2:00 - 4:00 pm Central Time**

Produced by the Alabama Department of Public Health  
Video Communications and Distance Learning Division

## **Faculty**

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## **Handwashing**

- Handwashing/hand hygiene is the 1<sup>st</sup> and last step in preventing infections

## **Handwashing**

- How to wash
  - Use warm (not hot, nor cold) running water
  - Lather soap in hand, then vigorously rub together
    - All surfaces (palms, backs of hands, between fingers and wrist)

## **Handwashing**

- Around nail beds and under fingernails
- Around and under any rings

## **Handwashing**

- Most sources recommend a minimum of 10 – 15 seconds of friction
- Rinse well under running water to remove all soap
- Turn off water with a paper towel, discard, then dry hands

## Hand Hygiene

- Hand hygiene steps
  1. Apply 3 – 5 ml. (5 ml. is a teaspoon) of alcohol – based waterless agent into hand
  2. Vigorously rub hands (all surfaces) together until dry

## Handwashing

- Soap
  - Liquid soap is best
  - Bacteria can grow on bar soap, especially if it is resting in water
    - If stored in a drainable dish, may use, but rinse bar under running water before use
    - Do not carry bar soap from home to home

## Handwashing

- Liquid soap containers may also become contaminated
  - Carry as small a container as possible
  - If you refill a container, be sure that the container is clean and dry

## Hand Hygiene

- Antimicrobial soap and alcohol hand hygiene agents are used to kill or retard resident microorganisms in the deep epithelial skin layers

## Handwashing/Hand Hygiene

- When to wash
  - Prior to any patient care activity
  - When handling food
  - Between tasks
  - After removal of gloves

## Handwashing/Hand Hygiene

- After any activity that could contaminate your hands
  - Emptying trash
  - Sneezing
  - Touching hair
  - Changing diapers
  - Using toilet
  - Emptying vacuum

### **Handwashing/Hand Hygiene**

- At the end of the visit, before doing any paperwork
- **WHEN IN DOUBT DECONTAMINATE**
- Use friction when drying hands with a clean unused paper towel
  - Also helps remove bacteria

### **Hand Hygiene**

- **Waterless alcohol handwash products**
  - First used only when soap and water were not available
  - Now know they are more effective than soap and water
  - Cause less skin irritation and dryness

### **Hand Hygiene**

- Decreases the amount of time needed to decontaminate hands
- Increases hand hygiene compliance
- Alcohol is not a good cleaning agent and is not recommended in the presence of physical dirt or contamination with body fluids

### **Handwashing/Hand Hygiene**

- **Frequent handwashing will strip the skin of natural oils and lead to dryness, cracking and irritation**
  - This increases the risk of colonization and infection
- **Lotions and creams should be used with care**
- **Fingernails should be kept short and any flaking or peeling polish should be removed**

### **PPE**

- **GLOVES**
  - Use for any task involving a potential for contact with non-intact skin, mucous membranes and blood or body fluids (except sweat)
  - If in doubt use gloves

### **PPE**

- **Change gloves**
  - If cracked or torn
  - Between tasks and procedures on the same patient
    - Don't wear the same gloves to brush teeth that were used to bathe the patient
  - If a dirtier part of a task was completed before a cleaner part

### **PPE**

- After any contact with any material containing a high concentration of bacteria
  - Changing a diaper or cleaning up feces
- After any contact with patients that have MRSA or VRE
- Remove gloves as soon as possible after a task is completed to prevent cross contamination

### **PPE**

- **DO NOT WASH OR REUSE DISPOSABLE, SINGLE USE GLOVES**
- **ALWAYS WASH HANDS AFTER GLOVES ARE REMOVED**
- Don't touch your face or adjust PPE with contaminated gloves
- Don't touch environmental surfaces except as necessary during patient care

### **PPE**

- Latex gloves are made from natural rubber
- Latex allergies
  - Skin rash
  - Hives
  - Flushing
  - Nasal, eye and sinus symptoms
- Not only your problem, but possibly your patients also

### **PPE**

- Aprons should be worn with every patient
  - The apron worn over your uniform provides a basic barrier to protect you and also protect your patient
- Gowns should be worn during patient care activities when you anticipate your uniform may have contact with blood or body fluids

### **PPE**

- Wear mask and/or eye protection when there is a possibility of splashes or sprays to the facial area
- Masks/facial shields should protect the nose and mouth and prevent fluid penetration

### **PPE**

- Goggles or safety glasses should fit snugly over and around eyes or eyeglasses
- Personal glasses are not a substitute for goggles

### **PPE**

- Donning
  - Gown
  - Mask
  - Goggles
  - Gloves
- Removing
  - Gloves
  - Goggles
  - Gown
  - Mask

### **PPE**

- PPE safe work practices – always remember to
  - Keep hands away from face
  - Limit surfaces touched
  - Change equipment when torn or heavily contaminated
  - Perform hand hygiene immediately after removing all PPEs

### **Isolation**

- Standard precautions
  - All patients blood, body fluids, secretions, excretions, non-intact skin, and mucous membranes (except sweat)
- Contact precautions
  - Patients who are infected with MDRO's
  - Use when having direct contact

### **Viral Hepatitis**

- Signs and symptoms
  - Jaundice
  - Dark urine
  - Pale colored stools (clay colored)
  - Flu-like symptoms
  - Pruritus (generalized itching)
  - Anorexia (loss of appetite)

### **Hepatitis A**

- Transmission
  - Close personal contact – fecal/oral route (household, sexual, daycare)
  - Contaminated food or water (infected food handler, raw seafood)
  - Blood exposure (very rare)

### **Hepatitis A**

- Present vaccine is 99% effective
- Two dose schedule
  - Given 6 months apart
- Recommended for children 2 years or older, homosexual and bisexual men, IV drug users and travelers to endemic countries

## **Hepatitis B**

- **Transmission**
  - Sexual
  - Parenteral
  - Perinatal
  - Other

## **Hepatitis B**

- **Approximately 30 – 60% of young children and 2 – 10% of adults who are infected, will develop chronic disease**
- **Persons with chronic HBV infection are often asymptomatic**
- **Approximately 15 – 25% of these may die prematurely from either cirrhosis or liver cancer**

## **Hepatitis B Vaccine**

- **Vaccine is a yeast product (not blood)**
- **96% effective**
- **3 dose series, given IM in the deltoid (arm)**
  - 0, 3 and 6 month interval

## **Hepatitis C** **“The Silent Epidemic”**

- **A major healthcare problem worldwide**
- **Many people who are infected do not have symptoms for many years, but their blood and body fluids could be infectious to others**

## **Hepatitis C**

- **50 million people worldwide**
  - Of these 4 million are in the U.S.
- **70 -90% of those infected will develop chronic infection**
- **Contributes to over 12,000 deaths annually**

## **Hepatitis C**

- **Transmission**
  - Injecting drugs
  - Sexually
  - Blood transfusions (prior to blood donation screening)
  - Perinatally (rare)
  - Household: sharing toothbrushes, razors,etc.
  - Other

## **Hepatitis C**

- **Treatment**
  - There is no vaccine at present for hepatitis C
  - There are some anti-viral medications available for treatment of some hepatitis C patients, but the treatment is usually only effective in 10 -40% of those treated

## **2007 Respiratory Illnesses of Concern**

- **Seasonal Flu**
- **Avian Flu**
- **Pandemic Flu**
  - H1N1

## **Seasonal Flu**

- A respiratory illness that can be transmitted, easily, from person to person
- Most people have some immunity and a very effective and safe vaccine is available
- Everyone is strongly encouraged to get a yearly flu shot

## **Pandemic Flu**

- A virulent (strong) human flu that can cause a global or worldwide outbreak or pandemic of serious illness
- Because there is little natural immunity, the disease can spread easily from person to person
- There is pandemic flu currently

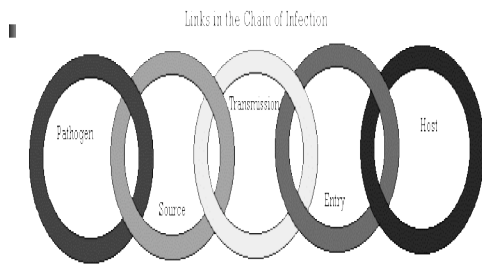
## **Respiratory Etiquette**

- When cough or sneeze, cover nose and mouth with a tissue
- Dispose in a waste basket
- If you do not have a tissue, sneeze or cough into your sleeve
- Avoid touching eyes, nose, or mouth

## **Prevention**

- After coughing or sneezing, always clean your hands with soap and water or an alcohol based hand cleaner
- Stay home when you are sick
- Do not share eating utensils, drinking glasses, towels or other personal items

## Chain of Infection



## Handwashing

### Infection Prevention



Lend Healthcare A Hand  
By Washing Yours™