



# Infection Prevention Training for Outpatient Healthcare Settings

## Module E- Principles and Practices of Asepsis HANDOUT

Rev 2023

Slide 1

E Principles and Practices of Asepsis

Module E

Principles and Practices of Asepsis

MODULE E

Ruins of Asepsis

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Slide 2

E Principles and Practices of Asepsis


Objectives



- Describe the principles and practice of asepsis



- Understand the role of hand hygiene in asepsis



- Understand the role of the environment in disease transmission

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E Principles and Practices of Asepsis

Defining Asepsis

	Medical Asepsis	Surgical Asepsis
Definition	Clean Technique	Sterile Technique
Emphasis	Freedom from most pathogenic organisms	Freedom from all pathogenic organisms
Purpose	Reduce transmission of pathogenic organisms from one patient to another	Prevent introduction of any organisms into an open wound or sterile body cavity

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Slide 4

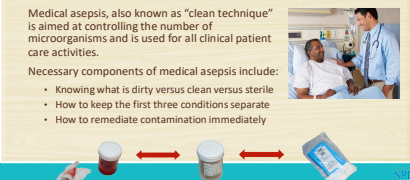
Principles and Practices of Asepsis

Medical Asepsis

Medical asepsis, also known as “clean technique” is aimed at controlling the number of microorganisms and is used for all clinical patient care activities.

Necessary components of medical asepsis include:

- Knowing what is dirty versus clean versus sterile
- How to keep the first three conditions separate
- How to remediate contamination immediately



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Principles and Practices of Asepsis

Principals of Medical Asepsis



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Slide 6

Principles and Practices of Asepsis

Surgical Asepsis



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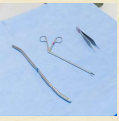
Principles and Practices of Asepsis

### Surgical Asepsis

Surgical asepsis, also known as "sterile technique" is aimed at removing all microorganisms and is used for all surgical/sterile procedures.

Necessary components of surgical asepsis include:

- Knowing what is and what is not sterile
- How to keep the first two conditions separate
- How to remediate contamination immediately



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Principles and Practices of Asepsis

### Principles of Surgical Asepsis

- The patient should not be the source of contamination
- Healthcare personnel should not be the source of contamination
  - Recognize potential environmental contamination
    - Keep door closed
    - Keep traffic to a minimum
  - Perform surgical hand scrub/ should be done meticulously
  - Don sterile gown and gloves
  - Only contact sterile items



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Principles and Practices of Asepsis

### Knowledge Check

Which of the following is True?

- A. Surgical asepsis should be used for all patient care activities
- ✓ B. "Clean technique" is used for all procedures done in outpatient care.
- C. Clean and dirty equipment can be stored together as long as they are not touching
- D. The goal for medical asepsis is freedom from all pathogenic organisms

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Slide 10

E Principles and Practices of Asepsis

### Role of Hand Hygiene



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E Principles and Practices of Asepsis

### What is Hand Hygiene?

- Handwashing with soap and water
- Antiseptic handwash
- Alcohol-based hand rub
- Surgical antisepsis



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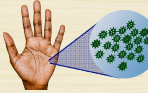
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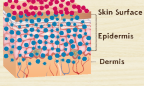
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### Role of Hand Hygiene



Stratum Corneum of the Skin



• Resident Bacteria  
• Transient Bacteria

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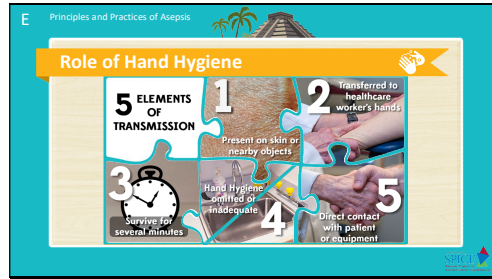
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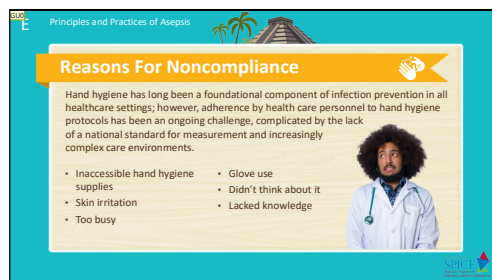
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Principles and Practices of Asepsis

### Potential Advantages Alcohol-based Handrubs

- Requires less time than hand washing
- Acts quickly to kill microorganisms on hands
- More effective than hand washing with soap and water
- More accessible than sinks
- Less irritating to skin than soap and water and can even improve condition of skin



**Important note:**  
Non-alcohol-based hand sanitizers should NOT be used in clinical settings

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When to Perform Hand Hygiene

The 5 Moments WHO	Consensus recommendations CDC Guidelines on Hand Hygiene in healthcare, 2002
1. Before touching a patient	Before and after touching the patient
2. Before clean/aseptic procedures	Before donning sterile gloves for central venous catheter insertion; also for insertion of other invasive devices that do not require a surgical procedure using sterile gloves If moving from a contaminated body site to another body site during care of the same patient
3. After body fluid exposure risk	After contact with body fluids or excretions, mucous membranes, non-intact skin or wound dressing If moving from a contaminated body site to another body site during care of the same patient After removing gloves
4. After touching a patient	Before and after touching the patient After removing gloves
5. After touching patient surroundings	After contact with inanimate surfaces and objects (including medical equipment) in the immediate vicinity of the patient After removing gloves

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How To Hand Rub

### Hand Rubbing



Alcohol-based handrub is preferential to hand washing when hands are not visibly soiled

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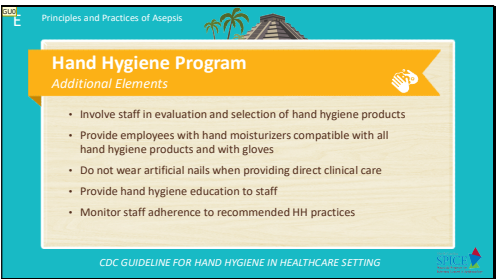
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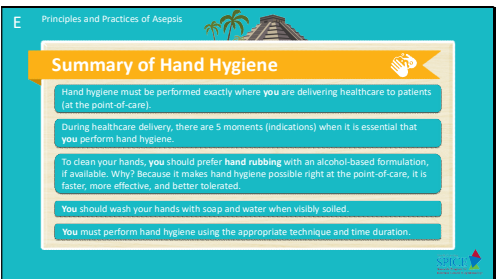
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Slide 21

E Principles and Practices of Asepsis

**Knowledge Check**

**True or False:**  
Hand washing with soap and water is always the preferred method of hand hygiene

True 

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E Principles and Practices of Asepsis

**Role of the Environment**

**Spaulding Classification of Surfaces:**

- 1. Critical** – Objects which enter normally sterile tissue or the vascular system and require sterilization
- 2. Semi-Critical** – Objects that contact mucous membranes or non-intact skin and require high-level disinfection
- 3. Non-Critical** – Objects that contact intact skin but not mucous membranes, and require low or intermediate-level disinfection

**Require**  
Sterilization  
High level disinfection  
Low level disinfection

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E Principles and Practices of Asepsis

**Role of the Environment**

**Clinical**

- High potential for direct contamination
- Spray or splatter
- Frequent contact with healthcare personnel's hands

**Housekeeping**

- No direct contact with patients or devices
- Little risk of transmitting infections

It is **IMPORTANT TO REMEMBER** THAT WHEN items used in the care of the patient touch or fall on the floor, they are potentially contaminated and should be cleaned/disinfected prior to use. If the item cannot be cleaned (gauze dressing for example) it should be discarded.

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**Principles and Practices of Asepsis**

### Role of the Environment

**Key points to address regarding cleaning/disinfectant products:**

1. Have policies and procedures in place on how products will be selected
2. Always follow manufacturer's instructions for use or IFUs, including complying with the recommended contact time
3. When canisters of disposable wipes are used ensure, lid remains closed when not in use
4. Wear appropriate PPE as directed by manufacturer's instructions for use

IFU



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Slide 25

**Room Cleaning**



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**Principles and Practices of Asepsis**

### Knowledge Check

**True or False:**  
Because of the increasing number of resistant organisms all environmental surfaces should be disinfected with bleach

True



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E Principles and Practices of Asepsis

**Knowledge Check**

Which of the following is NOT a component of asepsis

- A. Hand hygiene
- B. Environmental cleaning
- ✓ C. Droplet Precautions
- D. Separation of clean, dirty and sterile items

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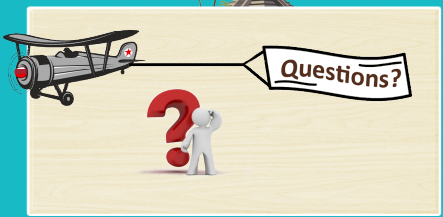
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E Principles and Practices of Asepsis



Questions?

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