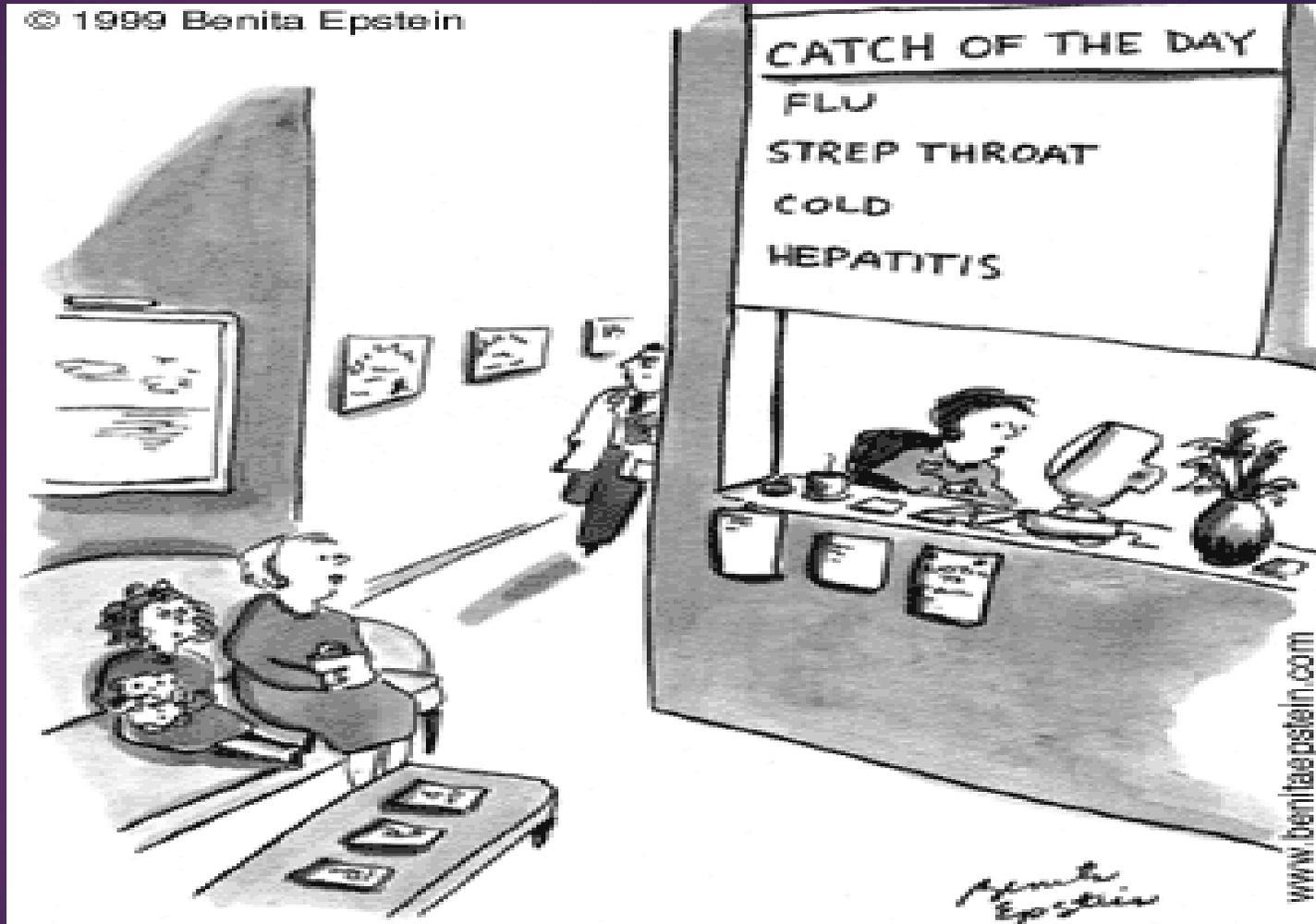




Julie Wolfe, MSN, RN, CNE

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Ways to Describe Infections

● **Inherent or Contagious**

● **Localized or Systemic**

● **Primary or Secondary**

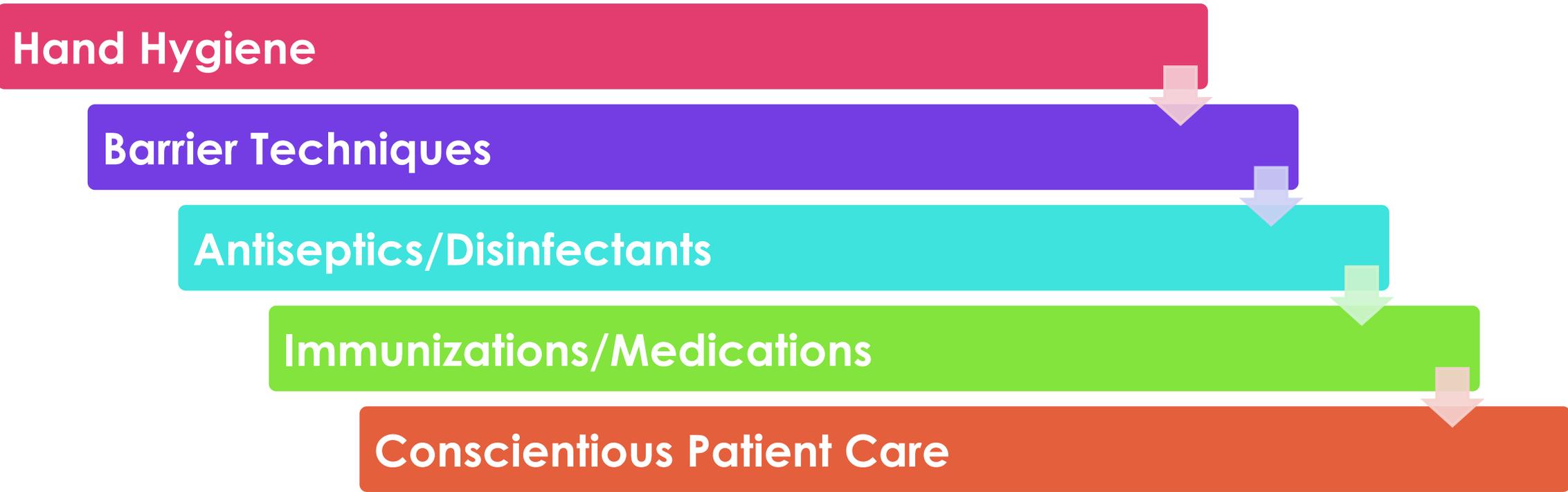
● **Exogenous or Endogenous**

Terminology

- ▶ **Infection** – when a pathogen **invades tissues** and begins multiplying within a host
- ▶ **Colonization** – presence and multiplication of microorganisms within a host but without tissue invasion or damage
- ▶ **Communicable disease** – that which can be transmitted from one individual to another
- ▶ **Symptomatic infection** – when pathogens multiply and cause signs and symptoms of disease
- ▶ **Asymptomatic** infection – when pathogens multiply but no clinical signs and symptoms are present
- ▶ **Virulence** – ability to produce disease

Prevention and Control

Hand Hygiene



```
graph TD; A[Hand Hygiene] --> B[Barrier Techniques]; B --> C[Antiseptics/Disinfectants]; C --> D[Immunizations/Medications]; D --> E[Conscientious Patient Care]
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Barrier Techniques

Antiseptics/Disinfectants

Immunizations/Medications

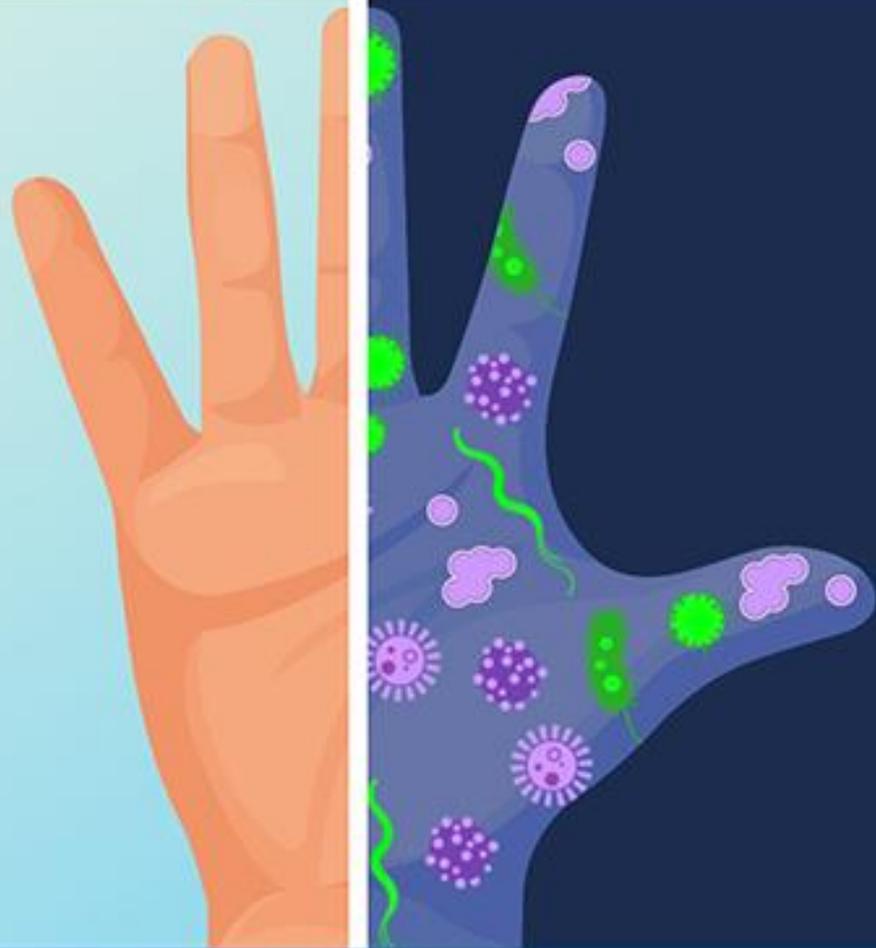
Conscientious Patient Care

- Hand Hygiene -

**THE SINGLE MOST IMPORTANT
Action For Preventing Infections –
What's the essential action?**



Your hands carry
germs you can't see



Wash your hands

www.cdc.gov/handwashing



Why is this so important?

The longer the duration of care - ***In the absence of hand hygiene*** - the higher the degree of contamination (colonization) on the HCW's hands.

What is our professional responsibility and to whom?

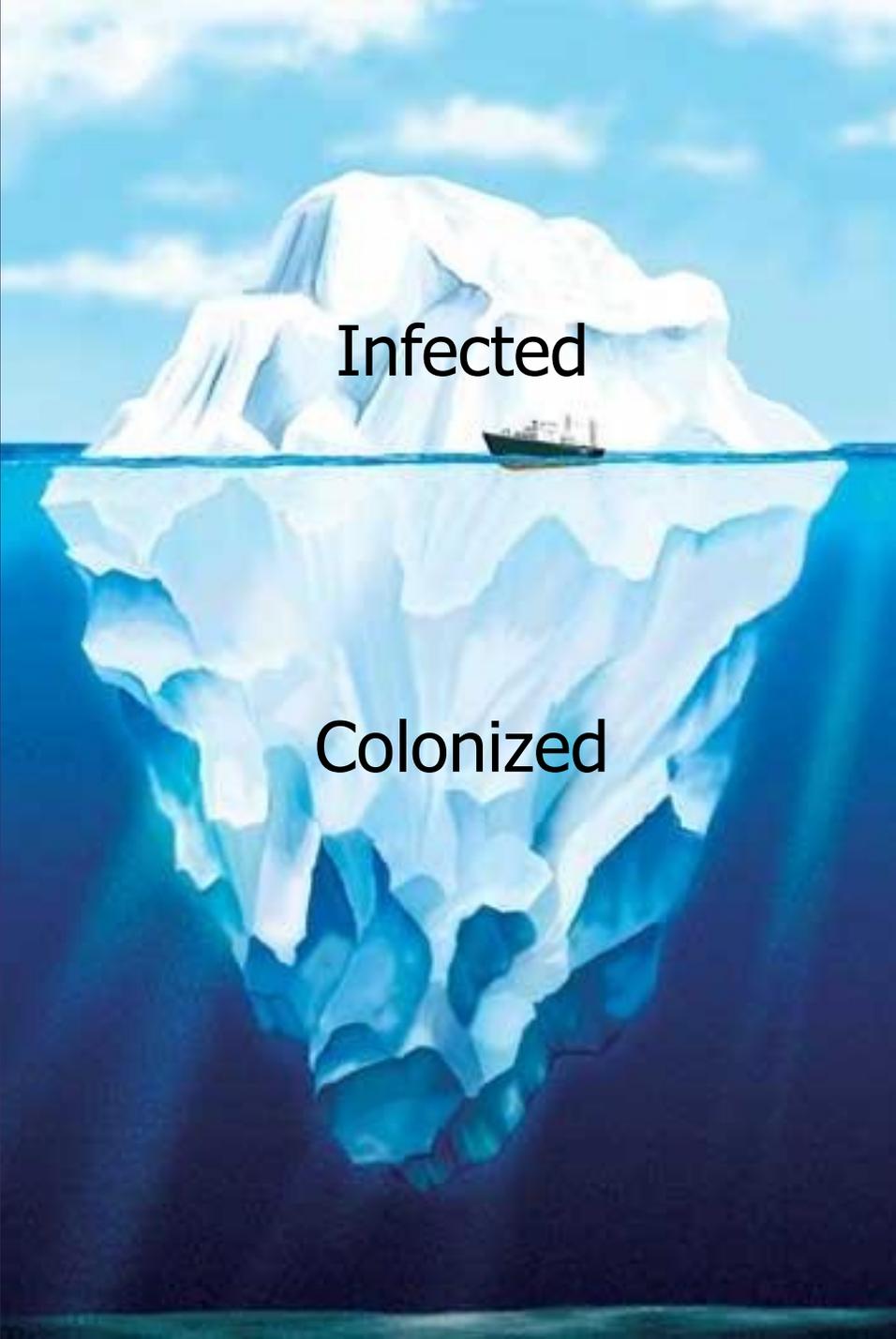
- Patients
- Ourselves
- Coworkers
- Organization
- Profession

Healthcare-Associated Infections

- Increased morbidity and mortality of patients
- Increased costs to the organization
- Decreased trust

Your 5 Moments for Hand Hygiene





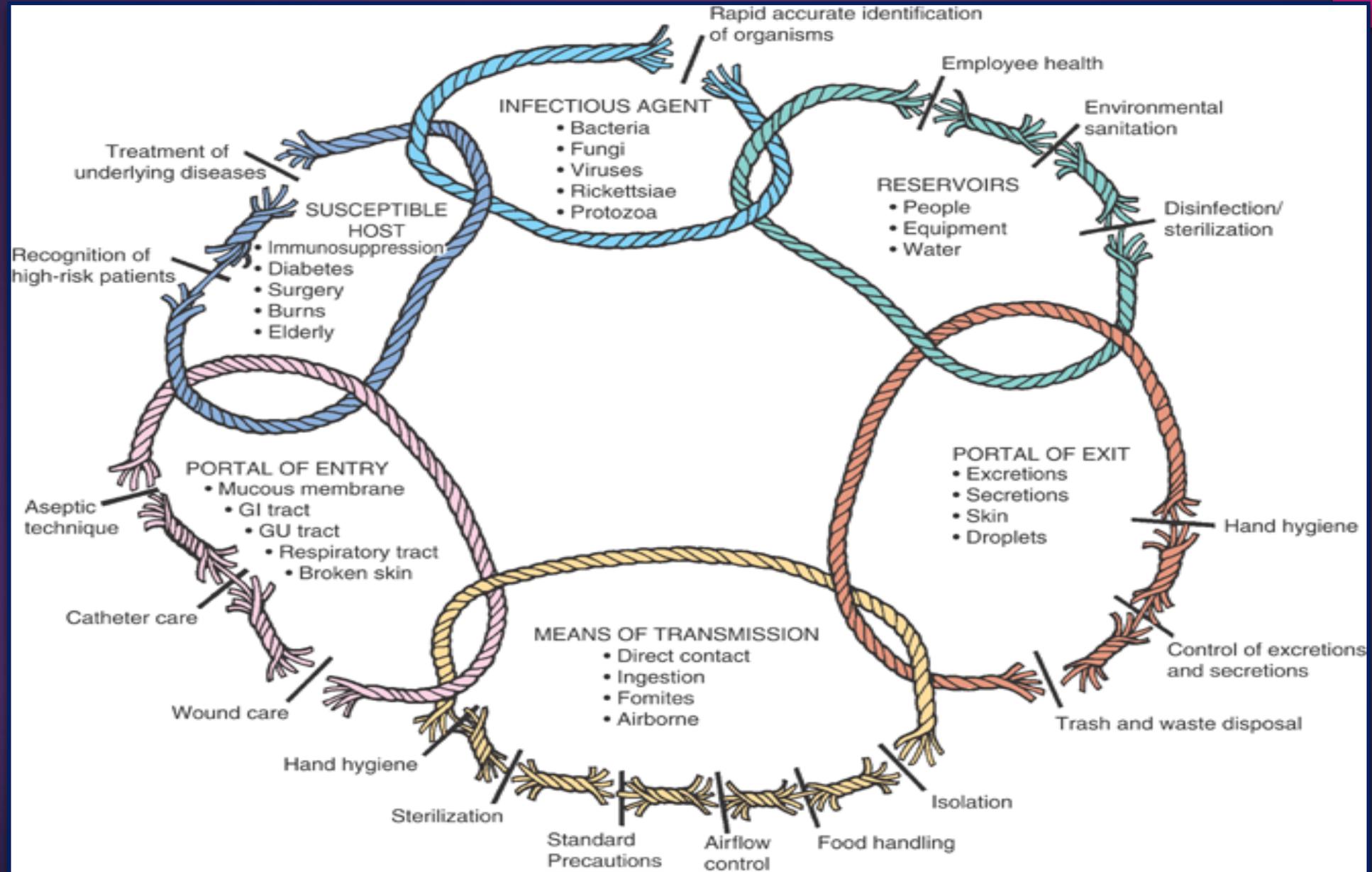
The Iceberg Effect



Natural Defense Mechanisms Against Infection

- ▶ Skin
- ▶ Mouth
- ▶ Eyes
- ▶ Respiratory tract
- ▶ Urinary tract
- ▶ Gastrointestinal (GI) tract
- ▶ Vagina

Chain of Infection



Infectious Agents

- ▶ Viruses
- ▶ Bacteria
- ▶ Fungus
- ▶ Protozoans
- ▶ Helminthes
- ▶ Prions

Resident or Transient?

Reservoirs

A reservoir is any natural setting where growth and reproduction of an infectious agent can occur.

Humans

Animals

Food

Water

Insects/Arthropods

Inanimate objects **

Soiled or wet dressings

Hospital equipment, etc.

Portal of Exit

Respiratory: Sputum, Cough, Sneeze

G-U: Reproductive secretions, Urine

G-I: Saliva, Emesis, Blood and Feces

Venous System: Blood

MM & Non-Intact Skin: Draining Wounds

Eyes/Ears



This is why respiratory
hygiene is so important

Means of Transmission

Direct contact: person to person

Indirect contact: fomite (objects)

Respiratory – through the air

Vector – insect transmission

Indirect Contact High Touch Areas

- Gowns, bed linen, bedside furniture and other objects in the immediate environment
- Handles
- IV poles
- BP Machines, Pulse Ox, Stethoscopes
- Accudata Machines
- A multitude of other inanimate objects

Disinfecting Wipes



- In cases where C-difficile is suspected or confirmed, Bleach wipes MUST be used to disinfect patient care equipment and environmental surfaces
- Also used in all cases of loose and/or incontinent stools.
- **Bleach wipes require 3 minutes of wet to dry on surfaces to kill pathogens**



- Hydrogen Peroxide (H-P) wipes may be used for most routine equipment and surface disinfection
- **H-P wipes require 1 minute of wet to dry on surfaces to kill pathogens**

Portal of Entry

GI-GU Tract

Mucous Membranes

Skin Integrity Disruption

Respiratory Tract

Eyes

Susceptible Host

Immunocompromised

Aged or the very young

Trauma/Surgery

Indwelling devices

Skin, Mucous Membrane Breaks

Poor Oxygenation

Impaired Circulation

Suceptible
Host -
continued

Chronic or acute disease

Antibiotic resistant (MDRO)

Poor aseptic measures

Poor nutrition

Stress

Crowded environments

Poor sanitation

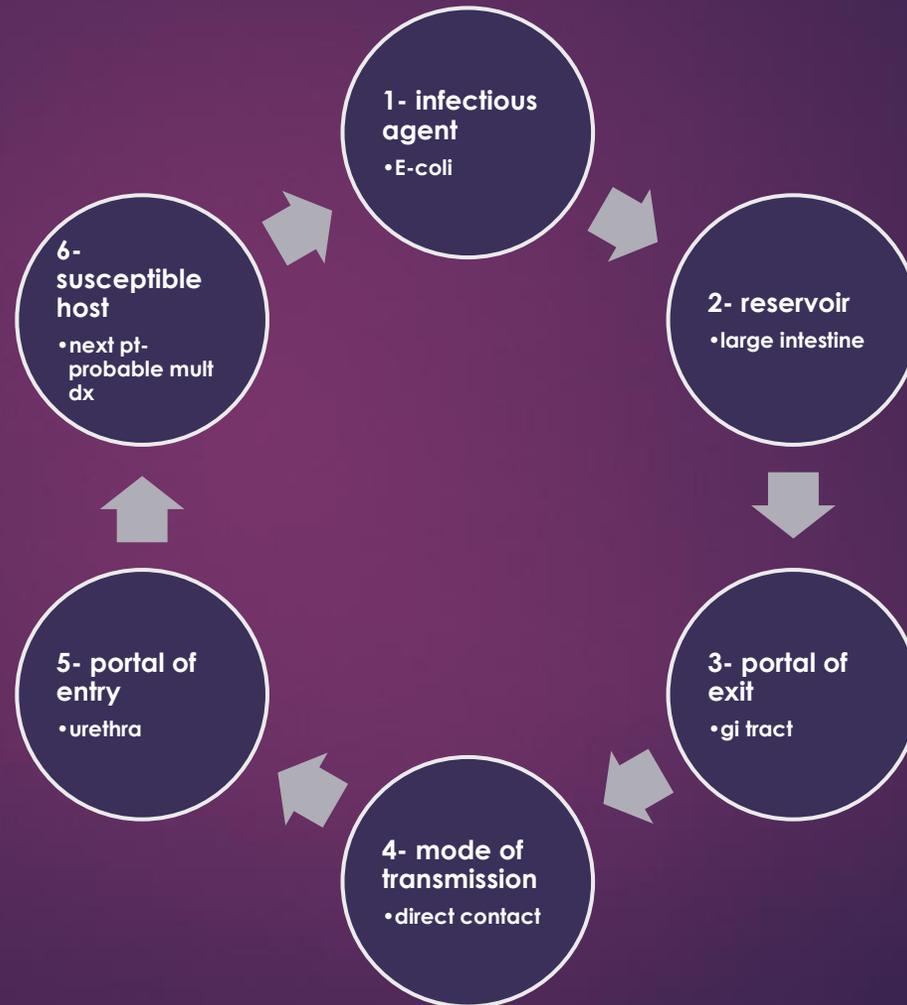
Travel exposure

Patient Scenario # 1

An elderly patient, hospitalized with acute Gastroenteritis (E-Coli) is on bed rest and requires total assistance. The nurse provides excellent skin care because he has frequent, uncontrolled diarrhea.

However, after cleaning this patient and changing his bed linens, the nurse leaves and attends to her next patient to provide scheduled care for an indwelling catheter. She does not wash her hands before leaving the first room and forgets to do so before providing catheter care.

Patient Scenario #1



Patient Scenario #2

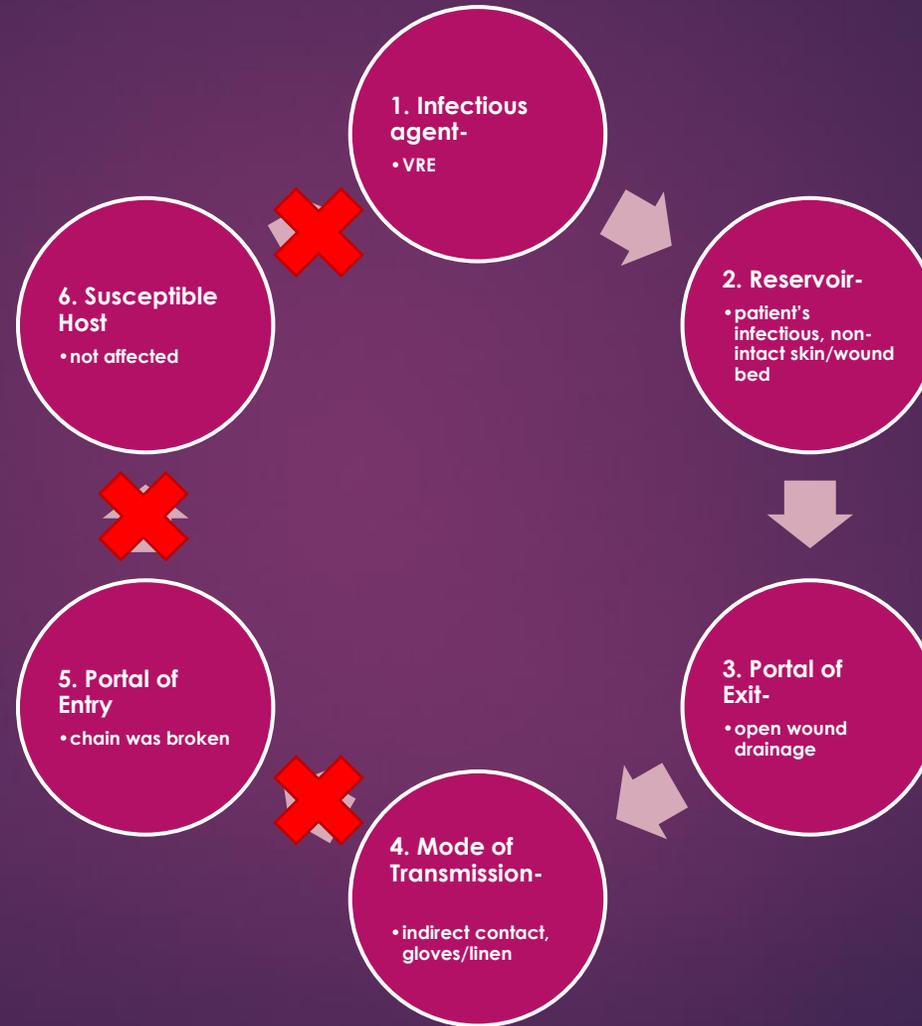
A patient assigned for morning care has an open wound that cultures positive for VRE.

In preparation for bed-making, the nurse washes her hands, places clean linen on a clean/dry surface & a bag for soiled linen was obtained.

In compliance of infection control practices, the nurse:

- 1- aseptic handwash
- 2- wore gloves
- 3- each side of the soiled linen ends were folded towards the middle of the bed
- 4- soiled linens were held away from the nurses clothes & placed in the appropriate bag
- 5- gloves were removed
- 6- aseptic handwash

Patient Scenario #2



A community health nurse notices containers with free standing water. The water serves as which element in the chain of infection?

- a. Etiological Agent
- b. Reservoir
- c. Portal of Exit
- d. Method of Transmission
- e. Portal of Entry
- f. Susceptible Host



Remember: EVERYTHING
you touch has been touched by
someone else!!!

*Be Your Own Infection Control
Advocate*



Questions?



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