

INFECTION CONTROL



Infection control refers to measures used to prevent the spread of microorganisms and healthcare-associated infections (HAIs).

Core Principles

- Hand hygiene: most important basic infection prevention measure
- Use PPE according to anticipated exposure
- Appropriate application of Aseptic Technique
- Safely handle sharps, contaminated equipment, linens, and waste

Chain of Infection

Link	Examples
Infectious agent (The disease-causing microorganism)	bacteria, fungi, virus, parasite
Reservoir (where the infectious agents thrive)	water, soil, person, animals, objects
Portal of exit (where the infectious agent exits the host)	blood, respiratory secretions, urine, feces
Transmission (how the infectious agent moves from one place/person to another)	airborne, droplet, direct
Portal of entry (where the infectious agent enters the host)	Respiratory tract, wounds, punctures, mouth
Susceptible host (person who can be infected by the infectious agent)	immunocompromised clients, children, infants, older adults

Remember: Infection can be prevented by breaking any link in the chain

Hand Hygiene

Alcohol-based hand rub

Use when hands are not visibly soiled and alcohol-based hand rub is appropriate

Soap and Water

Use when hands are visibly dirty or soiled, after using the toilet, and when specifically indicated for certain organisms or situations.

Remember: In clients with C. difficile, emphasize soap and water hand washing because alcohol-based hand rub does not reliably remove spores



5 Moments of Hand Hygiene

- Before touching a client
- Before an aseptic technique procedure
- After body-fluid exposure
- After touching a client
- After touching the client's surroundings

Remember: Gloves do not replace hand hygiene.

Personal Protective Equipment

Equipment worn for protection from acquiring infections. This is selected based on the anticipated exposure and the required Transmission-Based Precautions.





PPE	Protects against
GLOVES	Contact with body fluids, mucous membranes, non-intact skin
GOWN	contamination of clothing/skin
MASK	respiratory droplets/splashes
GOGGLES/FACE SHIELD	splashes/sprays to eyes, nose, and mouth
N95 OR HIGHER RESPIRATOR	airborne infectious particles

Donning Of PPE - Putting On “Good Men Equip Gloves”

Gown
Mask
Eye protection
Gloves

Doffing of PPE - Taking off “Goodbye Everyone, Goodbye Mask”

Gloves
Eye protection
Gown
Mask

Standard Precautions

Basic precautions used for all clients, regardless of diagnosis or infection status

Includes:

- Hand hygiene
- PPE based on anticipated exposure
- Respiratory hygiene/cough etiquette
- Safe injection practices & sharps safety
- Proper handling of contaminated equipment/materials

Transmission-Based Precautions

Used in addition to Standard Precautions when a client has a known or suspected infection requiring additional measures.

Precaution	PPE	Examples
Contact Direct contact with the client / indirect contact through contaminated objects (fomites)	Gown + Gloves	4S Stool (C. difficile/Infectious Diarrhea) Skin infections Scabies, Lice, Chicken pox rSv (Respiratory Syncytial Virus)
Droplet respiratory droplets that travel short distances <3ft. Room assignment: Private or cohort	Face mask	“See? I Put My Mask Ready.” Streptococcus Pharyngitis Influenza Pertussis Mumps, bacterial meningitis Rubella, RSV



Airborne Smaller particles that can travel >3ft. Room assignment: Private/Negative pressure room (allows air IN, not OUT)	N95 or higher	“More Hams To Can.” Measles Herpes Zoster (Disseminated Zoster) Tuberculosis Chickenpox (Varicella)
Neutropenic (Protective Isolation/Reverse Isolation) Aimed to protect clients from acquiring infections Room assignment: Private Positive pressure room (allows air OUT, not IN)	Face mask	Clients with weak/poor immune system Cancer/Chemotherapy Corticosteroids HIV/AIDS Organ Transplant

NEUTROPENIC PRECAUTIONS:

Protect the **CLIENT** from others/environment.

Remember: **NEURON**

N-No sick guests

E-Evaluate and Report fever immediately (even slight elevation)

U-Use strict hand hygiene

R-Raw/undercooked foods and fresh flowers/plants should be avoided

O-Observe for infection

N- No sharing of equipment (have dedicated equipment for client)

Client Transport with Isolation Precautions

Transport only when medically necessary.

Before transport:

Notify receiving department.

Maintain appropriate precautions.

Cover draining/infected wounds.

Use source control for respiratory infections when appropriate.

Ensure healthcare workers use appropriate PPE.

For clients requiring respiratory precautions:

Mask client when appropriate and tolerated. (Face mask is sufficient for client with airborne precautions).

Sharps Safety

Never routinely recap used needles.

Remember:

- Do not bend needles
- Do not break needles
- Do not manipulate used sharps unnecessarily
- Dispose of immediately in a puncture-resistant sharps container
- Use safety devices when available

If recapping is specifically required: Use a one-handed scoop technique or an approved safety device.



Medical vs. Surgical Asepsis

	Medical	Surgical
Also called	Clean technique	Sterile technique
Goal	Reduce the number and spread of organisms	Prevent any microorganisms from entering a sterile area
Gloves	Clean/non-sterile gloves	Sterile gloves
Type of activities	Clean, routine, non-invasive	Sterile, invasive
Examples	Hand hygiene, taking vital signs, maintaining hygiene and grooming, cleaning equipment	Sterile dressing change, surgeries, catheterization

Reminder: Sterile Field

- When sterility is compromised or cannot be guaranteed, a sterile field is contaminated.
- Sterile items that touch non-sterile items are contaminated
- Wet/moist field: contaminated (strike-through)
- Below waist level is contaminated
- The outer ~1-inch border is contaminated.
- Reaching beyond the field: break in sterility
- If you turn your back on or lose sight of the field, it may be contaminated.
- If in doubt, think it's contaminated.