



Lecture 4

Subject

Hand Washing

Theoretical

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Chain of Infection

1. Etiologic Agent
2. Reservoir (carrier)
3. Portal of Exit from Reservoir
4. Method of Transmission
5. Portal of Entry to the Susceptible Host.
6. Susceptible Host

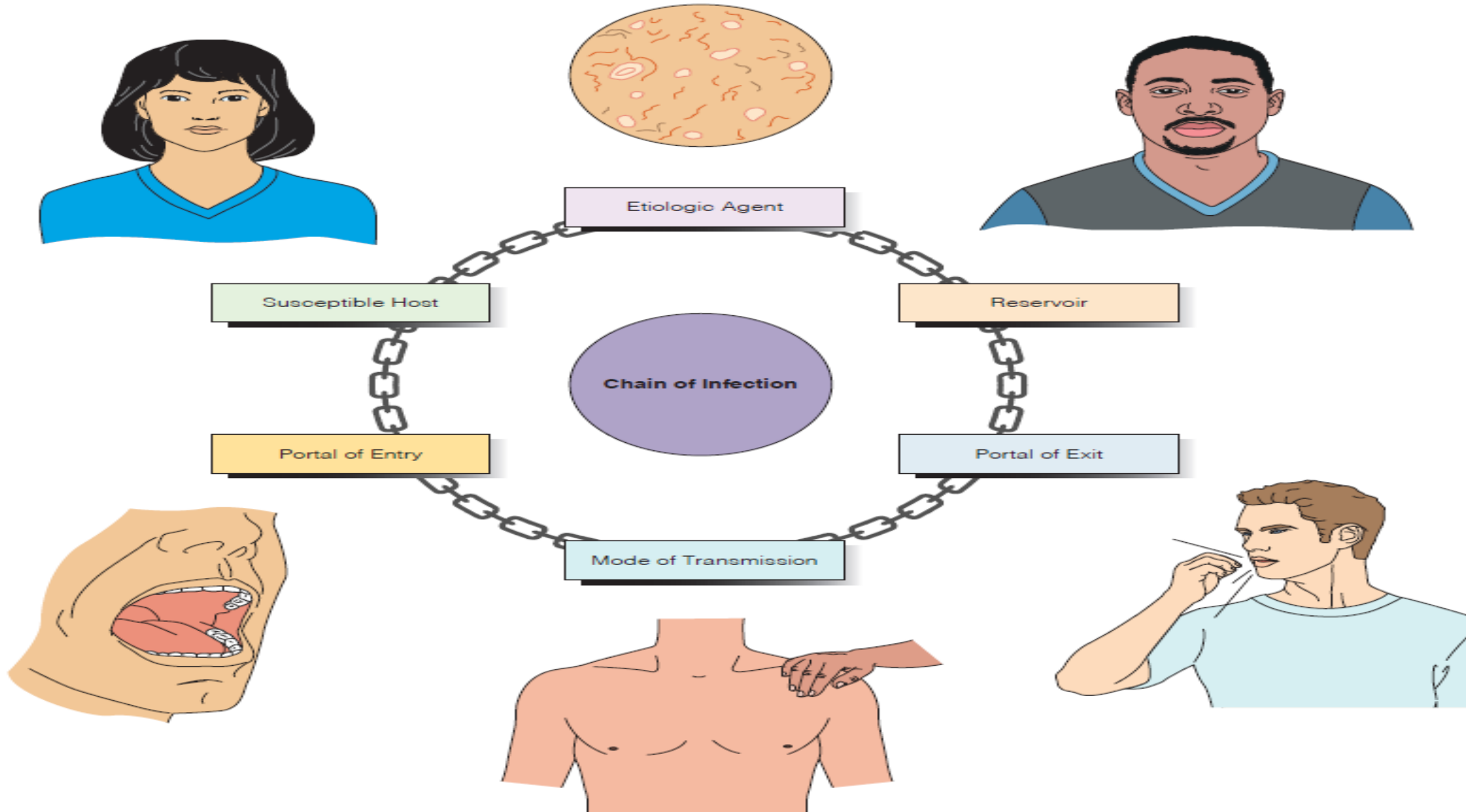


Figure 31.1 ■ The chain of infection.

TABLE 31.3

Human Body Area Reservoirs, Common Infectious Microorganisms, and Portals of Exit

Body	Common Infectious	Portals of Exit
Area Reservoir	Microorganisms	
Respiratory tract	Parainfluenza virus <i>Mycobacterium tuberculosis</i> <i>Staphylococcus aureus</i>	Nose or mouth through sneezing, coughing, breathing, or talking
Gastrointestinal tract	Hepatitis A virus <i>Salmonella</i> species <i>C. difficile</i>	Mouth: saliva, vomitus Anus: feces Ostomies: feces
Urinary tract	<i>Escherichia coli</i> enterococci <i>Pseudomonas aeruginosa</i>	Urethral meatus and urinary diversion
Reproductive tract	<i>Neisseria gonorrhoeae</i> <i>Treponema pallidum</i> Herpes simplex virus type 2 Hepatitis B virus (HBV)	Vagina: vaginal discharge Urinary meatus: semen, urine
Blood	HBV HIV <i>Staphylococcus aureus</i> <i>Staphylococcus epidermidis</i>	Open wound, needle puncture site, any disruption of intact skin or mucous membrane surfaces
Tissue	<i>Staphylococcus aureus</i> <i>Escherichia coli</i> <i>Proteus</i> species <i>Streptococcus</i> beta-hemolytic A or B	Drainage from a cut or wound

Hand washing

- Hand hygiene is important in every setting, including hospitals. It is considered one of the most effective infection control measures.

PURPOSES

1. To reduce the number of microorganisms on the hands.
2. To reduce the risk of transmission of microorganisms to clients.
3. To reduce the risk of cross contamination among clients.
4. To reduce the risk of transmission of infectious organisms to oneself



Equipment

- Soap
- Warm running water
- Paper towels

Preparation

1. Nails should be kept short. do not permit to have any form of artificial nails.
2. Removal of all jewelry is recommended.
3. Check hands for breaks in the skin, such as hangnails or cuts.

There are five common types of faucet controls:

- a. Hand-operated handles.
- b. Knee levers.
- c. Foot pedals.
- d. Elbow controls.
- e. Infrared control.



① A knee-lever faucet control.



② A foot-pedal faucet control.

Performance

1. If you are washing your hands where the client can observe you, introduce yourself and explain to the client what you are going to do and why it is necessary.
2. Turn on the water and adjust the flow that the water is warm.
3. Wet the hands thoroughly by holding them under the running water and apply soap to the hands.
4. Hold the hands lower than the elbows so that the water flows from the arms to the fingertips.

4. Thoroughly wash and rinse the hands.

- Use firm, rubbing, and circular movements to wash the palm, back, and wrist of each hand.
- Interlace the fingers and thumbs, and move the hands back and forth.
- Rub the fingertips against the palm of the opposite hand.
- Continue this motion for at least 20 seconds.

5- Rinse the hands.

6. Dry hands and arms thoroughly with a paper towel without scrubbing.

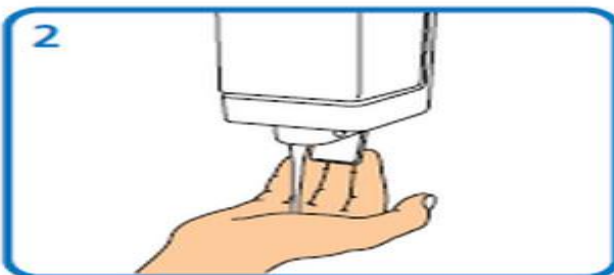
7. Turn off the water. Use a new paper towel to grasp a hand-operated control.



4 Using a paper towel to grasp the handle of a hand-operated faucet.



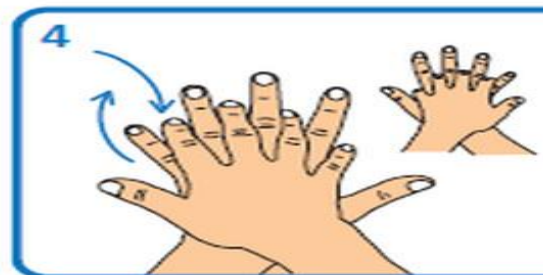
ok, if you had one shot
or one opportunity



To seize everything you
ever wanted in one
moment



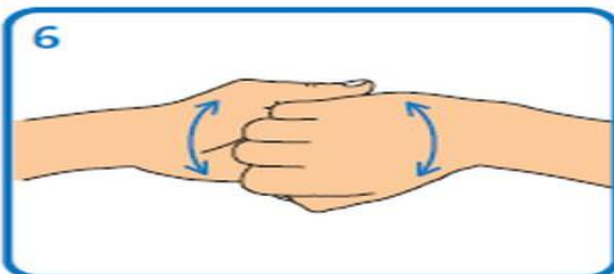
Would you capture it, or
just let it slip? Yo



His palms are sweaty,
knees weak, arms are
heavy



There's vomit on his
veater already, mom's
spaghetti



He's nervous, but on the
surface he looks calm and
ready



To drop bombs, but he
keeps on forgetting



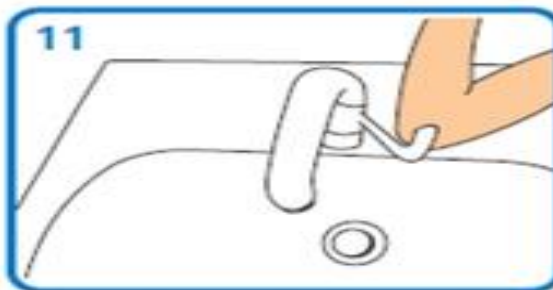
What he wrote down, the
whole crowd goes so lo



Mama, life had just begun



But now I've gone and
thrown it all away



Mama, ooh, didn't mean
to make you cry



If I'm not back again this
time tomorrow



JOHNS HOPKINS

M E D I C I N E

THE JOHNS HOPKINS
HOSPITAL

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and Infection Control (HEIC)

References

- **Urden, L. D., Stacy, K. M., & Lough, M. E. (2016). Priorities in Critical care nursing 7Th edition: critical care nursing. *Elsevier Health Sciences*.**
- **Medical-Surgical Nursing Critical thinking for person-Centred Care Third Australian edition (2017). *Volumes 1 – 3*.**