

Key
Part of main Idea
Factors that make up Main Idea
Examples

Know medical terms

SLO for Week 1

1. Explain the infection cycle.

a. Infectious agent

- i. **Bacteria** (E.coli, Staphylococcus, streptococcus)
- ii. **Virus** (HIV, common cold, influenza [seasonal flu], Covid 19, hepatitis A,B,C)
- iii. **Fungi** (Athlete's foot, ring worm, yeast infection)
- iv. **Parasites** (Malaria occurs from mosquitos infected with a parasite)

b. Reservoir: where the pathogen normally live, grows and multiplies before it spreads

- i. **People**
- ii. **Animals**
- iii. **Soil**
- iv. **Food**
- v. **Water**
- vi. **Milk**
- vii. **Objects**

c. Portal of exit – how the germ leave the reservoir to spread

- i. **Respiratory** (coughing, sneezing)
- ii. **Gastrointestinal** (vomit or feces)
- iii. **Genitourinary Tracts** (urine, reproductive fluids)
- iv. **Skin Breakdown** (open wounds, drainage)

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v. Blood and Tissue

d. Means of transmission

i. Contact

1. **Close Proximity: Touching, kissing, Sexual intercourse.**
2. **Indirect contact:**
 - a. **Vector** – living creature that transmits a pathogen to humans. Ex mosquitoes, ticks
 - b. **Fomite** – an inanimate object that harbors a pathogen. Ex touching an infected door handle

ii. **Droplet** –

1. organism greater than 5 μm .
2. Heavy enough to land on surfaces.
Ex: **cough & sneeze**

iii. **Airborne** –

1. less than 5 μm .
2. Can remain in the air.
Ex: can be produced through **talking**

e. Portal of entry

- i. **Respiratory (coughing, sneezing)**
- ii. **Gastrointestinal (vomit or feces)**
- iii. **Genitourinary Tracts (urine, reproductive fluids)**
- iv. **Skin Breakdown (open wounds, drainage)**
- v. **Blood and Tissue**

f. Susceptible host

What makes a susceptible host?

Problems with:

- 1 Body barriers: wounds, pH levels
- 2 Body makeup: age, heredity, sex
- 3 Body defenses: immunity, WBC count
- 4 Body condition: fatigue, nutrition, illness, stress
- 5 External factors: meds, medical devices

2. List the stages of an infection.

- a. □ **Incubation**: germs grow, no symptoms yet (ex: cold 1–2 days, tetanus 2–21 days).
- b. **Prodromal**: early signs start; you feel “off” and are most contagious.
- c. **Illness**: full symptoms show up (you’re sick).
- d. **Recovery (Convalescent)**: body heals and returns to normal. sometimes fully, sometimes with lasting effects.

3. Identify patients at risk for developing an infection.

What makes a susceptible host?

Problems with:

- 1 Body barriers: wounds, pH levels
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4 Body condition: **fatigue, nutrition, illness, stress**

5 External factors: **meds, medical devices**

4. Describe nursing interventions used to break the chain of infection.

- **hand hygiene** before and after patient care.
- **personal protective equipment (PPE)** like gloves, masks, and gowns.
- **Clean and disinfect** patient equipment and surfaces.
- **Dispose** of waste and sharps properly.
- **sterile technique** during invasive procedures.
- **respiratory hygiene** (cover coughs and sneezes).
- **Good nutrition, rest, and hydration** for patients.
- **Educate patients** on how to prevent the spread of infection

5. Identify situations in which hand hygiene is indicated.

- before touching PT
- Before a clean or aseptic procedure
- After body fluid exposure risk
- After touching a PT
- After touching PT's surroundings

5. Identify multidrug-resistant organisms that are prevalent in hospitalized patients and community settings.

- a. **MRSA (Methicillin-Resistant Staphylococcus Aureus)**
 - i. **nose, skin, or GI tract**
- b. **VRE (Vancomycin-Resistant Enterococci)**

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- i. feces, urine, or blood
- c. CRE (Carbapenem-Resistant Enterobacteriaceae)
 - i. the gut
- d. C. diff (Clostridium Difficile)
 - i. Feces; causes severe diarrhea, especially after antibiotic use

6. Describe strategies for implementing CDC guidelines for standard and transmission-based precautions when caring for patients.
- a. Donning & doffing PPE correctly

What it is	What to wear	What to do
Droplet	-surgical mask -gloves	-private room -Door can stay open
Contact	Gown Put on before enter, take off b4 exit Gloves Put on before enter, take off b4 exit	- Change Gloves after touching PT - Clean everything
Airborne	-N95 mask -Mask 4 PT during transport	-private RM -Neg air pressure
Reverse Neutropenic (immune compromised PT)	-mask -gown -gloves -sometimes eye wear	-no live plants -No raw foods -clean hands

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7. Implement recommended techniques for medical and surgical asepsis.

Medical – reduce # of pathogens	Surgical – Eliminate # of pathogens
“clean Technique” Hand Hygiene Gloves Clean to dirty technique (wipe front to back) Dirty linens -> hamper Liquids into hopper	“sterile” Pathogen free environment Used for foley catheters & central line Gloves – sterile Mask Hair net Gowns.

9. Understand nosocomial infections (Hospital acquired/HAls

- Catheter Associated Urinary Tract Infections (CAUTI)
- Surgical Site Infection (SSI)
- Central-Line Associated Bloodstream Infection (CLABSI)
- Ventilator-Associated Pneumonia (VAP)

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SLO Week 2

- List the components of vital signs
 - [Here](#)
 - Temp
 - Respirations
 - BP
 - Pulse ox
 - Pulse
 - Pain level

- Explain the physiological processes involved in homeostatic regulation of temperature, pulse, respirations, and blood pressure

Temp	Thermoregulation controlled by hypothalamus – increase or decrease body heat - Sweat too cool, shiver too warm up
Pulse	Heart pumps blood thru arteries - Nervous system can speed up or down
BP	Brain stem controls breathing Based off O2 levels → more CO2 = FASTER BREATHING Normal O2 → slower breathing
Respirations	HR, Blood vessels, and brain work to keep pressure steady → change in HR, Vessel size and Blood flow

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- Compare and contrast factors that increase or decrease body temperature, pulse, respirations, and blood pressure

	Increase factors	Decrease factors
Temp	infection, exercise, stress, hot environment, Sex	cold environment, rest, older age, sex, sleep
Pulse	Exercise, fever, pain, anxiety, certain meds	Sleep, fitness, heart problems, some meds
BP	Stress, pain, obesity, high salt intake, stimulants	Rest, blood loss, dehydration, heart problems, meds.
Respirations	Exercise, fever, stress, high altitudes	Sleep, meds (opioids), brain injury

- Identify sites for assessing temperature, pulse, and blood pressure

	Where to assess
Temp	<ul style="list-style-type: none">- Oral [posterior sublingual pocket] Close to carotid artery<ul style="list-style-type: none">○ Leave in place 3 mins○ Not for children- Axillary [bulb in center of axilla, arm across chest]<ul style="list-style-type: none">○ Leave in place 5 – 10 mins○ Non-invasive; good for kids○ Less accurate

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	<ul style="list-style-type: none">- Rectal [side lying with upper legs flexed]<ul style="list-style-type: none">○ Leave in for 2 – 3 mins MOST ACCURATE○ When unsafe or inaccurate by mouth - Ear [Close to hypothalamus – sensitive to core temp change] for adult pull pinna up n back<ul style="list-style-type: none">○ 2 -3 seconds○ Fast○ Easy access○ Can be inaccurate
Pulse	Arteries: <ul style="list-style-type: none">- Carotid- Brachial- Radial- Femoral- Popliteal- Posterior tibial- Dorsalis pedis
BP	Upper arm (brachial artery) is most common; can also use thigh (popliteal artery) if needed

- Define normal ranges for vital signs & abnormal vital sign values
- **Temperature:**
 - **Normal:** 36–37.5°C (98.6°F)
 - **Abnormal:**
 - **Fever (Pyrexia):** above 38°C (100.4°F)
 - **Hyperpyrexia:** ≥ 41°C (106°F, medical emergency)
 - **Hypothermia:** below 35°C (95°F)
- **Pulse:**
 - **Normal:** 60–100 beats per minute

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- **Abnormal:**
 - **Tachycardia:** over 100 bpm
 - **Bradycardia:** under 60 bpm
- **Respirations:**
 - **Normal:** 12–20 breaths per minute (adult)
 - **Abnormal:**
 - **Tachypnea:** faster than 20
 - **Bradypnea:** slower than 12
 - **Apnea:** no breathing
- **Blood Pressure:**
 - **Normal:** less than 120/80 mmHg
 - **Abnormal:**
 - **Hypotension:** below 90/60 mmHg
 - **Prehypertension (elevated):** 120–129 / <80
 - **Hypertension Stage 1:** 130–139 / 80–89
 - **Hypertension Stage 2:** ≥ 140 / ≥ 90
 - **Hypertensive Crisis:** > 180 systolic (emergency)
- Identify factors that can affect vital signs
 - **Temperature:** time of day, age, biological sex, physical activity, health status, environment (hot or cold)
 - **Pulse:** exercise, fever, pain, stress, medications, heart disease, body position
 - **Respirations:** exercise, pain, stress, fever, medications, acid-base balance, altitude
 - **Blood Pressure:** age, weight, sex, race, food intake, exercise, stress, medications, body position, dehydration, blood loss

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- Differentiate between modifiable vs unmodifiable risk factors

Modifiable Risk factors	Unmodifiable Risk factors
<ul style="list-style-type: none">- Diet- Exercise- Stress lvl- Smoking- Alcohol use- Weight- Sleep habits- Medication use	<ul style="list-style-type: none">- Age- Sex- Genetics/heredity- Family health history

- Identify sites for assessing temperature, pulse, respirations, and blood pressure
 - **Temperature:** Oral (under tongue), Axillary (armpit), Rectal, Tympanic (ear), Temporal (forehead)
 - **Pulse:** Radial (wrist), Apical (chest), Carotid (neck), Brachial (arm), Femoral (groin), Popliteal (behind knee), Posterior tibial (ankle), Dorsalis pedis (top of foot)
 - **Respirations:** Observe chest rise and fall, or place a hand on the chest or abdomen to count breaths
 - **Blood Pressure:** Brachial artery (upper arm, most common) or Popliteal artery (thigh, if arm can't be used)
- Demonstrate beginning competency and accuracy in assessing and documenting a patient's temperature, pulse, respirations, and manual blood pressure

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- **Temperature:** Pick the right site, use a clean thermometer, take the reading correctly, and write it down in °C or °F.
- **Pulse:** Find the pulse (usually on the wrist), count for 30 seconds ×2 or a full minute, and note if it's fast, slow, or uneven.
- **Respirations:** Watch the chest rise and fall for one full minute, count the breaths, and note if they're regular or hard to breathe.
- **Blood Pressure:** Use the right cuff size, place it on the upper arm, pump it up, slowly release the air, listen for the beats, and record the top (systolic) and bottom (diastolic) numbers
 -
- Demonstrate accurate documentation of vital signs
 - T ___ (site), HR ___ bpm, RR ___/min, BP /mmHg, date/time, initials
- **Temperature (T):** number + site → e.g., 98.6°F (oral)
- **Pulse (HR):** rate + rhythm + strength → e.g., 78 bpm, regular, strong
- **Respirations (RR):** rate + pattern → e.g., 16/min, even
- **Blood Pressure (BP):** systolic/diastolic + arm/site → e.g., 120/78 mmHg, R arm
- **Time & Date:** when taken → e.g., 10/4/25, 0900
- **Abnormal Findings:** note any irregularities → e.g., HR 110 bpm, irregular
- **Initial/Sign:** who measured → e.g., Melanie B., RN