

Name _____ . Date _____



Principles of Infection Control

Follow your teacher's instructions for answering the questions below.

1. List five (5) healthcare careers that would be MOST concerned with infection control, and why.

Health Career	Why would this professional be concerned with infection control?

2. Is *E. coli* a pathogen or a nonpathogenic? _____
Why?
3. What is the difference between a microbe and microorganism?
4. What is the ideal environment for the growth of microorganisms?
5. When you pour hydrogen peroxide on a bloody abrasion, it bubbles. The bubbles give off oxygen. What type of microbe would potentially be destroyed by the use of hydrogen peroxide – aerobic or anaerobic?

6. Bacteria are classified by shape. Draw an example of each shape.

Shape	My Drawing
Spirilla	
Bacilli	
Cocci	

7. A patient has a viral sore throat. Should her physician prescribe antibiotics? Why or why not?

8. What type of organism causes Malaria, Dysentery and African sleeping sickness?

9. What type of microbe can only be seen with an electron microscope?

10. What type of organism is plant-like?

11. Name one infectious disease that is caused by neglected parasitic infection.

12. A patient has a respiratory infection caused by a tubercle bacillus. Can it be treated with antibiotics?

13. A soccer player and shows you his feet. He doesn't have any pain, itching, or oozing. What do you think could be wrong with his feet, what caused it, and how will it be treated?



14. What is the difference between a nosocomial infection and an opportunistic infection?

15. Place the following in order from the item with the most microbes to the item with the least microbes.

- _____ Disinfected thermometer
- _____ Contaminated dressing
- _____ Sterile towel
- _____ Clean countertop

*Civil war conditions created a perfect environment for **dysentery** and diarrhea to thrive. Men lived crowded together, ate poor diets of fried meat, bread and coffee; used the same pan to cook their meal that they used to wash up; and went to the latrine upstream from their camp. Bowel disorders were the most common illness in the Civil War and **killed more men than battle**. Soldiers called dysentery the “quickstep”.*

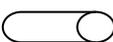
Name _____ . Date _____



Principles of Infection Control - KEY

Follow your teacher's instructions for answering the questions below.

1. List five (5) health careers that would be MOST concerned with infection control, and why.
This question is designed to activate prior learning and to challenge students to think about the application of learning about infection control. Accept all reasonable answers.
Commend those students whose answers were insightful and showed a clear understanding of the careers listed.
2. Is *E. coli* a pathogen or a nonpathogenic? It can be either. Why? *E. coli* is helpful in the human digestive tract (nonpathogenic) but can cause infection (pathogenic) in the places it is not intended to be – for example – in the urinary tract.
3. What is the difference between a microbe and microorganism?
They are the same thing.
4. What is the ideal environment for the growth of microorganisms?
Warm, moist and dark
5. When you pour hydrogen peroxide on a bloody abrasion, it bubbles. The bubbles give off oxygen. What type of microbe would potentially be destroyed by the use of hydrogen peroxide – aerobic or anaerobic? anaerobic
6. Bacteria are classified by shape. Draw an example of each shape.

Shape	My Drawing
Spirilla	
Bacilli	
Cocci	

7. A client has a viral sore throat. Should her physician prescribe antibiotics? Why or why not?
No. Antibiotics only kill bacteria and are ineffective against a viral infection. The overuse of antibiotics can cause strains of bacteria to become resistant to antibiotics.
8. What type of organism causes Malaria, Dysentery and African sleeping sickness? Protozoa
9. What type of microbe can only be seen with an electron microscope? Virus

10. What type of organism is plant-like? **Fungi**
11. Name one infectious disease that is caused by a neglected parasite. **Chagas disease, Cysticercosis, Toxocariasis, Toxoplasmosis and Trichomoniasis**
12. A patient has respiratory infection caused by a tubercle bacillus. Can it be treated with antibiotics? **Yes. Students should recognize that a bacillus is a shape of bacteria, and bacteria can be treated with antibiotics.**

13. A soccer player and shows you his feet. He doesn't have any pain, itching, or oozing. What do you think could be wrong with his feet, what caused it, and how will it be treated? **This is athlete's foot. It could have been caused by Barry walking around the locker room barefoot. It will be treated with antifungal medications.**



14. What is the difference between a nosocomial infection and an opportunistic infection?
Nosocomial infections are acquired in a health care facility. Opportunistic infections develop in someone whose normal body defenses are weakened and ineffective.
15. Place the following in order from the item with the most microbes to the item with the least microbes.
- | | |
|--------------|-------------------------|
| <u> 3 </u> | Disinfected thermometer |
| <u> 1 </u> | Contaminated dressing |
| <u> 4 </u> | Sterile towel |
| <u> 2 </u> | Clean countertop |