

## ADDIE'S STORY VIDEO QUESTIONS (ANSWER KEY)

Answer the following questions as you watch the PBS Frontline video *Hunting the Nightmare Bacteria*.

1. What did they find in Addie's lungs?

- A. Blood
- B. Water
- C. Pneumonia

2. What did the doctor think was most likely happening to Addie?

- A. A staph bacterium was causing septic shock.
- B. Her pneumonia had spread.

3. Why are gram negative bacteria so hard to treat with antibiotics?

They have a protective armor, the cell wall, to prevent antibiotics from getting in to kill it.

4. What does it mean if a bacterium is pan-resistant?

- A. It is resistant to a few different kinds of antibiotics.
- B. It cannot be treated with any antibiotics. It is resistant to them all.

5. Addie had "community acquired" resistant staph. How did Addie get this infection?

- A. Previous hospital visit
- B. Picking at scabs
- C. Contaminated food
- D. Fall on the playground

6. When Addie became sick, what was her first symptom?

- A. Difficulty breathing
- B. Nausea/Vomiting
- C. Pain in hip
- D. Diarrhea

7. What does pan-resistant mean?

- A. Bacteria resistant to all antibiotics
- B. Bacteria resistant to most antibiotics
- C. All bacteria resistant to antibiotics
- D. Resistant to pans

8. What treatment was Addie's best chance for survival?

- A. Iron lung
- B. Permanently on ECMO
- C. Lifetime on antibiotics
- D. Lung Transplant

9. What is NDM-1 and why is it so dangerous?

An enzyme that is resistant to any antibiotics.

10. How was David injured while in India?

- A. Bitten by a dog
- B. Run over by a train
- C. Cut his hand on some metal
- D. Skinned his knee with a fall

11. How many surgeries did David have to remove infections?

- A. 1
- B. 2
- C. 4
- D. 8

12. Since this infection cannot be cured, what treatment was most effective?

- A. Lung transplant
- B. Amputate both legs
- C. Amputate left arm
- D. Amputate more of right leg

13. In the end, how many people were infected with KPC? How many died?

- A. 2/2
- B. 28/18
- C. 18/6
- D. 18/18

14. Where do large numbers of gram-negative bacteria live in the body?

- A. In the digestive system
- B. On the skin
- C. In the reproductive system
- D. In the respiratory system

15. KPC (K. pneumoniae carbapenemase) is a "homegrown" enzyme from the US. What city was it predominantly located in at the time the video was made?

- A. Boston, MA
- B. Portland, OR
- C. Los Angeles, CA
- D. New York, NY

16. Despite following strict quarantine protocols, what happened five weeks after the first patient was released from the hospital?

- A. The patient died
- B. A staff member was diagnosed with the infection
- C. The bacteria was found on some equipment
- D. A second patient was admitted with the infection

**The following is not a question:**

*Notice at the 33-minute mark of this film the petri dish shows a resistance test. Each white disc is a piece of paper infused with a different antibiotic. The clear area around the center disc shows that antibiotic is effective against the bacteria being tested. The one on the left is partially effective. The other samples show the bacteria are resistant to those antibiotics. The photo shows the bacteria have grown right up to the disc.*

17. What percent of antibiotic use in the United States is estimated to be either unnecessary or inappropriate?

- A. 25%
- B. 50%
- C. 75%
- D. 100%

18. The \_\_\_\_ bacteria are exposed to the antibiotic, the \_\_\_\_ likely the bacteria are to develop antibiotic resistance.

- A. more/less
- B. more/more
- C. less/more
- D. less/less

19. Nearly \_\_\_\_% of antibiotic use is thought to be unnecessary or inappropriate

- A. 80
- B. 75
- C. 50
- D. 25

20. What term is used to describe the ability of any organism, such as bacteria in Addie's story, to change over time in order to increase its chances of survival?

Adaptation

*Adapted from: Sabasowitz, T. (n.d.). 'Hunting the Nightmare Bacteria' Documentary. Edpuzzle.  
<https://edpuzzle.com/media/5fc8e12cd6c23e40b3820a56>*