ELA Practice Exam for April 19, 2017

Passage one: The Plague

Have you ever heard the nursery rhyme called ring around the rosie? "Ring around the Rosie. Pocket full of poesy. Ashes, Ashes, we all fall down." This nursery rhyme is actually about a disease from the 14th century that the people called the plague or Black Death. This disease was highly contagious. It spread across Europe. It was so widespread and so deadly that it is estimated to have killed one fourth of all the people in Europe.

If you break down the poem you can actually understand the effects a bit more.

"Ring around the Rosie": Infected people broke out in a rash on their arms and neck that had red ring shaped marks with dark center spot that looked like a rose. They would then get a a high fever, become unconscious, and finally die.

"Pocket full of posey": People carried flowers, often posies, to cover the smell of the dead and dying.

"Ashes, Ashes": People would burn the houses of people with the disease in order to try and stop it. Whole villages were burned down. The sky was dark with the ashes of the burnt buildings.

"We all fall down": The plague filled villages and cities alike with dead and dying victims. People would collapse in the streets and be left lying there. People were afraid to touch them or near them.

Medieval people thought that the plague was a punishment from God. They did not know that fleas transmitted the disease from infected rats to people.

Today we have a vaccine against the plague.

Passage Two:

3 New Vaccines Against 'Black Death' Plague Bacteria Show Promise

Plague is an age-old disease that can still be deadly today, but now researchers are developing new vaccines that could potentially protect against plague infection, early research in animals suggests.

In a new study, researchers tested three vaccines that were designed to protect people against infection from the bacteria that cause plague, known as *Yersinia pestis*. To create the vaccines, the researchers modified several genes of the bacteria so that they couldn't cause disease, but would likely trigger an immune response in an animal. Specifically, the vaccines were designed to protect people against the bacteria that cause pneumonic plague, the most serious form of plague and the only type that spreads through airborne transmission.

Mice and rats were given two doses of each of the three vaccines. The researchers then infected the animals with pneumonic plague up to four months (120 days) after they were vaccinated. In the different experiments, between 80 and 100 percent of the animals that were vaccinated survived the plague.

"It is crucial that a potential vaccine candidate … [against plague] demonstrates long-term immune responses and protection," the researchers wrote in the Oct. 13 issue of the journal npj Vaccines. The new study showed that all three vaccines stimulated an immune response in the animals that was capable of protecting them from developing a pneumonic plague infection, they said. Although vaccines against plague have been developed in the past, there is currently no plague vaccine that's approved by the U.S. Food and Drug Administration. There was previously a vaccine that protected against bubonic plague (another form of plague that causes swollen lymph nodes, called buboes), but this older vaccine did not prevent pneumonic plague, and was discontinued by its manufacturer.

Plague is best known for killing millions of people in Europe in the 1300s, in a pandemic called the Black Death. Today, there are an average of seven human plague cases reported every year in the United States, according to the Centers for Disease Control and Prevention. The plague can be cured with antibiotics if the drugs are started soon after infection.

But without prompt treatment, plague is nearly 100 percent fatal, the researchers said.

Because of the high fatality rate without treatment, "the optimal strategy for protecting people … against this deadly disease would be through vaccination," Ashok Chopra, a professor of microbiology and immunology at The University of Texas Medical Branch at Galveston, said in a statement. Government officials are also concerned that plague bacteria could be used as a biological weapon. The researchers plan to conduct more studies in animals to test the safety of their vaccines, as well as better understand the way that the vaccines protect against plague. Eventually, the researchers plan to test the effectiveness of the vaccines in nonhuman primates (such as monkeys), which is an important step in testing vaccines before they are used in people.

Multiple Choice Questions:

1. Which statement from the passage shows that Black Death was “highly contagious”?

    a. Infected people broke out in a rash on their arms and neck that had red ring shaped marks with dark center spot that looked like a rose.
    b. It spread across Europe.
    c. The plague filled villages and cities alike with dead and dying victims.
    d. Medieval people thought that the plague was a punishment from God

2. What is the main difference between these two passages?

    a. One is cause and effect and the other is compare contrast.
    b. One is a narrative and the other is science fiction.
    c. Both are informational but the second passage has reliable sources
    d. Both are realistic fiction but one has dialogue and the other does not.

3. What is the definition for the word “vaccine”?

    a. A bacteria used to combat the plague
    b. A virus used to combat the plague
    c. A medicine use to combat the plague
    d. The scientific method used to find a cure for the plague

Constructed response: Describe the living conditions of the black plaque.

Essay: Scientists help improve the living conditions of citizens. Explain why the plague was so deadly and how scientists are still working to keep our communities safe. Make sure you use details from both passages.