Ebola Is Back in the News – Stats, Scares, and a Vaccine

Ebola is back in the news with an American who traveled to West Africa hospitalized in Birmingham, Alabama due to “Ebola-like symptoms.” The firefighters who helped him were placed under observation and his family was isolated with police. Two new cases were reported in Sierra Leone in an area where the disease outbreaks had stopped, and Merck’s Ebola vaccine, tested in New Guinea, “shows promising results.”

Ebola, formerly known as Ebola hemorrhagic fever, can cause disease in humans and other primates. It is a virus of the Filoviridae family and the Ebolavirus genus. Of the five virus species, four cause disease in humans, the fifth causes disease in non-human primates. Researchers believe infection originates from bats.

The disease is spread from direct contact of body fluids from a person infected with the disease or one who has died from the disease. There is also concern that men who have recovered from Ebola may spread the virus through semen.

On average, symptoms appear 8-10 days after exposure but can appear anywhere from 2-21 days. Symptoms include fever, severe headache, muscle pain, weakness, fatigue, diarrhea, vomiting, abdominal pain, and bleeding or bruising.

Birmingham Possible Ebola Case – Not Ebola

Less than 12 hours after his hospitalization, patient test results (along with family members and rescue workers) were negative for Ebola.

The unidentified patient, who was on a watch due to his

travels, alerted authorities when he began running a temperature. It is reported, however, that he was considered low risk because he had no known contact with Ebola patients while in Africa, nor did he engage in any high-risk activities.

Neighbors were told to stay in their homes while firefighters responded to the patient's residence. The patient was moved while wearing a mask. The hospital ER was temporarily shut down while the patient was being received.

Firefighters

One report says four firefighters who responded to the call were quarantined in order to go through decontamination procedures. When completed, they were isolated at a firehouse.

Another report said additional rescue workers were under quarantine or observation.

Family Exposed

The two exposed family members were isolated in their home with police remaining on the scene until test results came back negative.

Neighborhood Quarantine

What at first appeared to be a neighborhood quarantine was lifted after the patient was transported. Everyone was told to remain in their homes while rescue workers they assessed the situation and transported the patient. The entire block had been closed to traffic, but the authorities opened up the street around 11 p.m.

Response

The response to this Ebola scare was both preemptive and well orchestrated. UAB Hospital and the patient were both monitoring the patient's temperature twice a day and watching for Ebola-like symptoms due to the fact that the patient had visited an Ebola-stricken country. This standard protocol was followed with the patient self-reporting when he developed a fever.

The hospital reports that a large number of employees had been undergoing training for more than a year, preparing for such an event. Although it is reported that no firefighters came in direct contact with the patient, authorities erred on the side of caution with decontamination and isolation protocols.

Sierra Leone

After an Ebola death last week in the Tonkolili district, an area that had been free of Ebola for months, authorities quarantined 500 people. The two new cases of Ebola are family members of the man who died.

Ebola Vaccine

Initial results of Merck's Ebola vaccine report 100% vaccine efficacy in trials, results so promising that the vaccine trials will be changed. Initially, two randomized groups were receiving the vaccine, one that receives the vaccine immediately after exposure and the other that received it 21 days after exposure. Due to the high fatality rate and the initial trial results, researchers are now administering vaccines upon initial exposure.

Current Statistics in Africa

According to current information from the CDC (August 4th, 2015), two countries continue to record widespread cases.

- Guinea: 3,784 total cases (suspected, probable, and confirmed), 3,327 confirmed cases, 2,522 deaths.
- Sierra Leone: 13,406 total cases, 8,695 confirmed cases, 3,951 deaths.

The outbreak in Liberia appears to be under control with only 6 cases reported and confirmed since June 28th. The devastation left in its wake, however, is enormous.

- Liberia reports 10, 672 total cases, 3,157 confirmed cases, 4,808 deaths.

Current Statistics in Other Countries

- Nigeria: 20 total cases, 19 confirmed, 8 deaths
- Senegal: 1 case, confirmed, 0 deaths
- Spain: 1 case, confirmed, 0 deaths
- United States: 4 total cases, 4 confirmed, 1 death
- Mali: 8 total cases, 7 confirmed, 6 deaths
- United Kingdom: 1 case, confirmed, 0 deaths
- Italy: 1 case, confirmed, 0 deaths

This totals 36 total cases, 34 confirmed, with 15 deaths.

Conclusion

We can only hope the reality of the threat is recognized and American children are not faced with another mandated vaccine.

Hospital and emergency worker protocols in place due to the fear of Ebola have provided necessary training for

professional response in the event of any type of pandemic. The response to this situation is a far cry from the fumbling efforts with America's first Ebola patients.

Sources:

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- *New Ebola Virus Infections Detected In Sierra Leone as Initial Vaccine Tests Yield 100 Percent Success Rate* – The Gospel Herald Life
- *2014 Ebola Outbreak in West Africa – Case Counts* – CDC