

N442 Contagion Video Handout CARSEN WHITE

Use your textbooks to understand epidemiology and nursing implications for communicable diseases.

1. Do you think the discussion with the physician right after his wife dies realistically portrays how a medical provider could explain such a phenomenon?

The physician could have been more specific with the unanswered diagnosis of death and the physician could have been more compassionate when relaying the information to the patient's husband.

2. How many times do you touch your face during the movie?

20-30 times

What do they quote as the range in which people touch their face in an hour?

180-300 times an hour

3. Identify the chain of infection:

The infectious agent, reservoir, portal of exit, mode of transmission, portal of entry, and susceptible host
(bat to pig then from human to human)

4. What is/are the infectious agent?

Bats gave it to pigs and pigs gave it to the humans.

5. What diseases did they rule out?

They ruled out the flu, mad cow disease, chicken pox, and polio.

6. What is the reservoir?

Animals and humans.

7. What are the portals of entry? The portals of exit?

When touching/being around other individuals that had the disease. Touching people and it staying on the other objects that were touched. This is through contact.

8. What are the fomites? Can the virus live for 6 days on a box?

Objects or materials which are likely to carry infection, such as clothes, utensils, and furniture. No, it cannot.

9. What is the process they take to determine what the disease is?

They interview individual family members of the individual patients that passed from being affected from the disease. Hong Kong government officials also went through videotapes of the first affected individual to see who all she had come in contact with and what she did at the casino and until she landed in Chicago.

10. What agencies get involved?

Homeland Security, WHO, CDC,

11. What precipitates these agencies getting involved?

Many people lost their lives and it was spread through many individuals. They want to see how it got into the United States and how it affected each individual.

12. What is the role of these agencies?

To identify the chain of infection and ways to break it

13. What is the time frame from onset to manifestations of symptoms (i.e. incubation period and then to death)?

The period of incubation is one day and then three additional days until death (4 days from onset of symptoms to death).

14. What are the actions taken by the CDC in terms of containing the infection?

Stopping individuals from going from state to state and they are quarantining families and individuals.

15. What is an "R naught" (R_0)?

The reproductive rate of the virus

16. What do the investigators do to protect themselves?

The investigators and public officials wear PPE when going out in public or when around other individuals. They are also only having a small amount of people work in certain places.

17. Calculate the mortality rate from the disease in the first 7 days in Minneapolis?

Day 7: 6-8 death

18. What does the epidemiologist from the WHO do to track the progression of the disease?

In the movie, the public health experts spot possible cases and groups of people exhibiting similar symptoms, find out where they've been, find out who they've been in contact with, and isolate the ill and exposed.

19. What is an epidemic? versus a Pandemic?

An epidemic is an outbreak of disease that spreads quickly and affects many individuals at the same time. A pandemic is a widespread occurrence of an infectious disease over a whole country or the world at a particular time.

20. What is a quarantine?

A condition, timeframe, or location of isolation where individuals or animals who may have been exposed to an infectious disease are kept.

21. Why does the husband not get sick? What type of immunity does he have?

The husband does not get sick because he has passive immunity from his mother.

22. What are the symptoms of the virus?

Severe headache, photophobia, diaphoresis, coughing, chills, can't swallow (dysphagia), high fever, rash all over the body.

23. How do they develop a vaccine?

They test these diseases and medications on pigs, and monkeys.

24. How is the vaccine administered?

Intranasally

25. Is it a live virus vaccine versus an attenuated virus vaccine?

It is a live (attenuated) vaccine rather than an inactivated vaccine.

What is the difference?

Inactivated vaccines are made from a protein or other small pieces of a killed virus or bacteria. Live vaccines use the weakened, or attenuated, form of a virus or bacteria. It reduces the severity of the bacteria or virus, but still keeps it viable to provide immunity.

26. What sort of immunity does the vaccine provide?

It provides active immunity

27. How can the vaccine be administered to the greatest number of people?

They could set up vaccination centers and more hospitals should offer.

28. How does the environment, transportation, communication, essential services, government, and health care facilities get involved?

Communication they are trying to work online, transportation they are shutting down planes and bus services. Government they are taking the president and other government officials underground. Health care facilities are going on strike. The environment is going crazy and getting out of hand because they are scared.

29. In your opinion do local, national, and global politics make a difference in the development and distribution of the vaccine?

Yes

Explain your opinion?

All of those politicians in this movie and during COVID got to have the vaccine first and be the ones who said what individuals get the vaccine first and they determine how long every individual waits for the vaccine. They also determine who is eligible to receive the vaccine.

30. Does it make a difference if there is a rush to develop the vaccine?

Yes because the vaccine could kill some individuals depending on how each individual reacts to the vaccine.

31. Does it make a difference that a vaccine may have other side effects? (Ex: 1976-Swine Flu vaccine.)

Yes, because it may affect you long term. Swine Flu also killed other individuals when they came out with the vaccine.

32. As a community health nurse: Identify the primary, secondary, and tertiary prevention methods that could be used for infectious diseases at both the individual and community levels.

- Primary:
 - Individual Level: Handwashing
 - Community Level: Mandate safe and healthy practices

- Secondary:
 - Individual Level: Regular exams
 - Community Level: Screening

- Tertiary:
 - Individual Level: Managing disease (antibiotics)
 - Community Level: Rehabilitation

33. What are the steps that a community needs to do to respond to an infectious disease outbreak?

Response to a disease epidemic involves three steps: surveillance, appraisal, and application of preventative measures.