

Jamal Drea

4/4/23

3.3

47  
8

### N442 Contagion Video handout

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?

Sure

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

3

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

3-5 per minute (180-300 an hour)

3. Identify the chain of infection:

Bats → Pigs → Human <sup>contact</sup> consumption → Droplet

4. What is/are the infectious agent?

Viral proteins from pigs/bats

5. What diseases did they rule out?

Measles, meningitis, influenza

6. What is the reservoir?

Humans and animals it spread from (pigs + bats)

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

Nose and mouth are the portals of entry and exit because the disease is spread through droplet

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

Surfaces that were touched or coughed on by the infected.  
Yes.

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

Run DNA sequencing to find origin

10. What agencies get involved?

CDC, WHO

22. What are the symptoms of the virus?

Cough, diarrhoea, seizure, headache, fever, dysphagia

23. How do they develop a vaccine?

The vaccine was made through growth and weakening of the virus while using genetic sequencing.

24. How is the vaccine administered?

Intranasally

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

Attenuated virus vaccine

What is the difference?

An attenuated virus vaccine uses the weakened form of the virus

26. What sort of immunity does the vaccine provide?

Active artificial immunity

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

The movie mentioned putting the vaccine in the water supply

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

They get involved by managing transportation and communicating to control the

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?

It creates conflict on who should get the vaccine first and affects the distribution

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

The movie mentioned how human trials would be needed to check effectiveness and side effects

11. What precipitates these agencies getting involved?

The rapid spread of an unknown disease that results in death

12. What is the role of these agencies?

To investigate the disease and control the spread of infection

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

Two days

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

The CDC controlled the movement of people and tracked who came in contact with the virus

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

Reproductive rate

16. What do the investigators do to protect themselves?

Wear masks, gloves, and specialized suits

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

$$\frac{8}{330000} = 0.002\%$$

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

The epidemiologist observed how the virus affected different animal cells

19. What is an epidemic? versus a Pandemic?

An epidemic is a disease that largely spreads throughout a community or population while a pandemic is worldwide.

20. What is a quarantine?

Quarantine is the prevention of movement between people to stop contact with pathogens

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

The husband does not get sick because he has active natural immunity to the virus

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

It affects the public opinion on whether they should get 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.

Individual - Primary (wash hands, wear PPE, get vaccinated), Secondary (get tested for infection by disease), Tertiary (receive treatment for disease)  
Community - Primary (Educate on preventing spread), Secondary (provide screenings), Tertiary (provide treatment for disease)

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

The community should have an emergency response plan and communicate the spread of infection while quarantining to avoid the spread of infection.