

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?

Yes, I feel like this is realistic in relation to how these conversations happen day-to-day when doctors have to relay information about the death of a patient.

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

Probably close to 100 times.

What do they quote as the range in which people touch their face in an hour?
2-3000 times a day, 3-5 times every minute

- 3.** Identify the chain of infection:

The chain of infection is through droplets of the virus being spread on a various basis of fomites.

- 4.** What is/are the infectious agent?

A virus originated from bats and pigs.

- 5.** What diseases did they rule out?

Measles, H1N1, encephalitis, meningitis.

- 6.** What is the reservoir?

Humans, pigs, bats.

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

When an infected person sneezes or coughs and then touches something, a fomite, that can transmit the disease.

- 8.** What are the fomites? Can the virus live for 6 days in a box?

The poles on the busses/boat, binders, door handles and door knobs, water glasses, elevator buttons, cell phones, casino chips, ATMs. Viruses cannot live for days on a box.

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

They first ruled out other disease processes, then they did an autopsy of a deceased patient and sent samples to the CDC. They looked at the structure of the samples

10.What agencies get involved?

Health Department, CDC, Homeland Security, WHO

11.What precipitates these agencies getting involved?

The outbreak of the disease that turns into an epidemic and then a pandemic.

12.What is the role of these agencies?

These agencies work together to figure out the origin of the outbreak and control the spread through quarantine, vaccine, and treatment.

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

The incubation period is less than 10 days.

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

Protocols established for SARS, quarantine of the Beijing complex, screening for symptoms, isolating the sick patients

15.What is an “R naught” (R_0) ?

The number of people that each sick person is likely to infect. R=reproductive rate of the virus.

16.What do the investigators do to protect themselves?

They are wearing hazmat suits and appropriate PPE to prevent transmission of the disease.

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

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

She goes to the origin of the suspected suspect who died and investigates where she had been, who she had been in contact with, and anything that she may have done out of the ordinary to contract a disease.

19.What is an epidemic? versus a Pandemic?

An epidemic is an outbreak of a disease, but a pandemic is a global outbreak of a disease.

20. What is a quarantine?

A quarantine is a situation in which people are isolated due to a possible contagious situation to prevent spread of a certain disease.

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

The husband has active immunity to the disease.

22. What are the symptoms of the virus?

Headache, blurry vision, foaming at the mouth, seizures

23. How do they develop a vaccine?

They have to first be able to grow the virus in a laboratory setting.

24. How is the vaccine administered?

The vaccine is intranasal

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

It is a live vaccine

What is the difference?

A live vaccine will provide a more long term immunity to a disease compared to a short term attenuated vaccine (Office of Infectious Disease,).

26. What sort of immunity does the vaccine provide?

Active immunity

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

The vaccine can be administered through clinics and pop up tents that will provide the vaccine to cooperating citizens.

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

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

In my opinion, yes it does make a difference because they are in control of the higher parties such as the CDC who controls the vaccine development and things like that.

Explain your opinion?

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

Yes, I think it does make a difference because if there is rush on a vaccine being developed, there is not enough time to discover the side effects of the vaccine because we are worried about it helping people from contracting the disease.

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

I believe that the side effects take place when the person is not critically specific to the disease. For example, when we went through the Covid pandemic it was advertised that patients with heart problems were more beneficial to get the vaccine than others. On the other hand, those who didn't have those disabilities may have suffered more from the side effects than from not getting 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: hand hygiene, isolation, and vaccination

Secondary: screening individuals for symptoms

Tertiary: managing the symptoms

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

A community should acknowledge the severity of the outbreak and follow the provided protocols for this certain outbreak. These protocols are provided to prevent further spread of the infection and if they are not followed the outbreak could become much worse than it could be.