

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?

No. The physician does not do a good job explaining the situation to Mitch. He is short and keeps asking if he wants to talk to someone else or if there is someone he can call. He does not use therapeutic communication.

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

Not as much as I usually would since this pandemic is going on but still quite a few times. I have a problem with adjusting my glasses all of the time that I need to work on.

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

Every three to five times per minute

4. Identify the chain of infection:

Asian forests get cut down

Bat moves to pig style and drops banana

Pig eats banana

Pig is then taken to Casino restaurant

The chef touches the pig blood on his apron

The chef shakes hands with Beth and Beth touches multiple others. She then carries the virus to the US and the others carry the virus to where they live.

4. What is/are the infectious agent?

Pigs

5. What diseases did they rule out?

Measles, H1N1, Influenza

6. What is the reservoir?

Bats

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

Nose, mouth, mucous membranes, droplets from coughing or sneezing

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

Any object that is capable of carrying infectious organisms (door knobs, etc) such as germs or parasites that transfer from one person to another. No it cannot live for days on a box.

9. What is the process they take to determine what the disease is?
Autopsy. They take a sample from Beth after she dies and tests it.
Then, they send samples to the CDC.
10. What agencies get involved?
WHO
CDC
Department of Homeland Security
FDA
American Red Cross
11. What precipitates these agencies getting involved?
New or reemerging outbreaks
12. What is the role of these agencies?
Set up a plan to limit the spread of the disease
Track disease origin
Set up treatment facilities
Develop a vaccine
Keep people safe and informed
13. What is the time frame from onset to manifestations of symptoms i.e. incubation period and then to death?
1-3 days
14. What are the actions taken by the CDC in terms of containing the infection?
 - To set up a plan to limit the spread of the disease, quarantine the infected individuals, isolating the sick, track the disease's origin, set up treatment facilities, and develop a vaccine
15. What is an "R naught" (R_0) ?
The reproductive rate of the virus. The number of new cases that a single infected person will cause on average.
16. What do the investigators do to protect themselves?
 - They wear PPE, including gloves, PAPR hood, and bodysuit.
17. Calculate the mortality rate from the disease in the first 7 days in Minneapolis?
25%

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

She travels back to Hong Kong, China to track Beth's movements while she was there to try and track the progression of the disease.

19. What is an epidemic? versus a Pandemic?

Pandemic: disease that has spread across many countries

Epidemic: widespread occurrence of an infectious disease in one community at a particular time

20. What is a quarantine?

A state, period, or place of isolation in which people or animals that have arrived from elsewhere or been exposed to infectious or contagious disease are placed.

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

He is immune. He may have had natural immunity or may have previously gotten the virus and been asymptomatic, making him immune without knowing. The movie is not clear on why he is immune.

22. What are the symptoms of the virus?

Cough, sore throat, headache fever, diaphoresis, seizures

23. How do they develop a vaccine?

They test the vaccine on monkeys and when they think one is successful the doctor gives it to herself.

24. How is the vaccine administered?

Intranasally

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

Live virus vaccine

Attenuated virus vaccine: weakened, less vigorous virus may be used to make vaccine

26. What sort of immunity does the vaccine provide?

Active immunity

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

Setting up local sites for people obtain the vaccine locally

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

The CDC, WHO, and other scientists are working to discover the cause of the illness and what kind of virus is causing it. They are also working to find a treatment and a vaccine. Schools are getting shut down. FEMA gets involved by helping out in healthcare organizations and providing food. Hospitals set up triage areas for the specific disease. Some of the nurses go on strike because they cannot do anything to help people. They make an automated phone message for people calling emergency services so that people can be directed to where they need to be.

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 seems that certain individuals, such as those working for the government and their family members, may have earlier access to resources. The government also decided that they would do the birthday lottery method when deciding who got the vaccination first.

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

Yes. A vaccine that is developed quickly will allow for more lives to be saved.

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

- Yes, the decision to mass vaccinate can lead to more severe complications. In 1976 during the swine flu outbreak, mass vaccinations led to increased reports of people developing Guillain-Barre Syndrome. This disease causes paralysis, respiratory arrest, and death.

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 would include education about the virus, and ways to prevent it. This would also include getting the vaccine yourself and giving the vaccination to others. Secondary would include screenings for the virus. This includes screening yourself and others. Tertiary prevention would include caring for the patients who already have the virus or quarantining them to contain the virus.

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

They need to educate community members and determine the safest way to contain the outbreak. This could include shutting down schools and other public places. They also need to practice proper sanitization and keep the community up to date on how to be safe

during this time. They need to alert the community of symptoms and the community needs to be aware of when to get tested. The number of those infected needs to be tracked and reported, as well. The community health department also needs to be in contact with the CDC and other national organizations in order to stay up to date on information.