

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, typically medical providers just say the basics “we did everything we could”. In the real world, the provider may provide the family with more information and a chance to view the body.

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

- I tried to limit interaction with my face as I read through these questions prior to watching the movie and was more cognizant of not touching my face. Typically, I touch my face several times.

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

- 3-5 times every minute so 180-300 times per hour
- 2-3 thousand times a day

3. Identify the chain of infection:

- Infectious agent, reservoir, portal of exit, mode of transmission, portal of entry, susceptible host

4. What is/are the infectious agent?

- MEV-1

5. What diseases did they rule out?

- H1N1
- Smallpox

6. What is the reservoir?

- Bats
- Pigs
- Contaminated people

- 7.** What are the portals of entry? The portals of exit?
- Mucosal membranes, exit via droplets from mouth, nose
- 8.** What are the fomites? Can the virus live for 6 days on a box?
- Fomites are transmission from surfaces
 - i. Water fountains, doorknobs, countertops
 - Cannot live on a box for 6 days
- 9.** What is the process they take to determine what the disease is?
- Collect blood samples, take to the laboratory to complete testing, quarantine the people suspected of the disease
- 10.** What agencies get involved?
- CDC
 - FEMA
- WHO
- 11.** What precipitates these agencies getting involved?
- An infectious disease, virus, bacteria, or fungus that is highly contagious and impacts several lives.
- 12.** What is the role of these agencies?
- To determine the infection, identify people who are infected, conduct research, and eliminate spread. In addition, they are interested in finding out information about the illness as in what the infection is, how it is spread, and how to stop it.

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

- Less than 10 days

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

- Making people wear masks when they are out in the public to protect themselves and others
- Isolating those who have symptoms of the virus, currently sick, or been in contact with someone who is sick

15. What is an “R naught” (R_0) ?

- Reproductive rate of the virus
 - i. How fast it multiples

16. What do the investigators do to protect themselves?

- Gloves
- Tape around cuff
- Goggles
- PAPR mask
- N95 mask
- Hairnets
- Zip-up gown

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

- Deaths/cases = $8/47 \times 100\% = 17\%$
- In the video they mention being approximately 20%

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

- Tracks back where the index patient was, watched videos at the casino, and traced people who came in contact with her.

19. What is an epidemic? versus a Pandemic?

- Epidemic is a disease outbreak affecting many people at the same time in a given area
- Pandemic is a type of epidemic with wider geographical surface area affecting high amounts of populations

20. What is a quarantine?

- A state of isolation away from others to limit spread of disease or infection

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

- The husband is immune to the disease

22. What are the symptoms of the virus?

- Can't swallow
- Severe headache
- Fever
- Sweating
- Cough

23. How do they develop a vaccine?

- The researchers attempted to grow the virus in a variety of settings such as pigs, chickens, and monkeys but it killed off everything before they could research or find a cure. The people then worked to give immunization testings to monkeys to see how they reacted.

24. How is the vaccine administered?

- Nasal inhalation both nostrils

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

- This is a live vaccine

What is the difference?

- Live vaccines work by using an actual part of the virus itself but in a weakened down form

26. What sort of immunity does the vaccine provide?

- This vaccine provides active immunity

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

- Mass production of the vaccine and delivered and administered immediately to all people

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

- Similar to what is taking place in our world today, the government prohibits gatherings, encourages social distances and hand washing, people are required to wear protection. Only essential businesses are to be open which led to several looters and break ins. No funeral was allowed to take place due to the risk of taking the bodies in, having people congregate, and exposure.

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?

- The politics play a huge role in the development and distribution of vaccines. Partly, they have to approve what is taking place in the research, approve the vaccine itself, and monitor who gets the vaccine. In addition, they have to approve the medications that are going into the vaccine.

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

- Yes, the faster the vaccine is available to the public, the more people are protecting themselves and others with active immunity.

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

- Yes, in some instances you would have to look at the risks vs the benefits of the vaccine. In the movie, when exposed to the virus, people are dying so if there is a vaccine against it, it makes the most sense to get vaccinated. Greatest good for the greatest amount of people.

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
 - Vaccinations
 - Education regarding ways to prevent the spread in the community
 - Education about social distances, hand hygiene, and only essential trips
- Secondary
 - Screenings for symptoms related to the disease
 - Refer suspected cases within the community to appropriate testing centers for screenings
- Tertiary
 - Hospitalization once the disease was acquired
 - Teach the community about resources once the disease is acquired for treatment

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

- Stay inside, limit contact with very young and very old, only go out for essential items if at all, wash hands frequently