

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 the main character's wife dies realistically portrays how a medical provider could explain such a phenomenon?** I thought that the way the doctor broke the news was very unprofessional. I think that it is normal to be angry when a loved one passes away suddenly and the doctor did not handle that very well. He should have had a more therapeutic approach and possible someone from case management or a grief counselor to help tell him the news.
2. **How many times do you touch your face during the movie?** 17 times

What do they quote as the range in which people touch their face in an hour? 3-5 times every min meaning 180-300 times per hour.

3. **Identify the chain of infection:** The chain of infection was a bat eating a banana and dropping some in which a pig ate then was butchered and sent to the casino where the chef was infected and passed it onto the main character Beth and then to individuals through there and then the world.
4. **What is/are the infectious agent?** The virus itself is the infectious agent.
5. **What diseases did they rule out?** SARS, Measles, H1N1, Meningitis, Encephalitis, herpes.
6. **What is the reservoir?** The reservoir is the bat and the pig.
7. **What are the portals of entry? The portals of exit?** The reservoir is mucous membranes including eyes, nose, mouth and genitals.

- 8. What are the fomites? Can the virus live for 6 days in a box?** Fomites are inanimate objects that when contaminated can transfer a disease to a new host. No, the virus cannot live on a box for six days.
- 9. What is the process they take to determine what the disease is?** They take blood samples and look at them under the microscope to determine the origins which are bat and pig. They then have to send an epidemiologist to China and retrace patient zero's actions.
- 10. What agencies get involved?** The CDC and WHO.
- 11. What precipitates these agencies getting involved?** After the death of patient zero an autopsy is performed and is indicated to have very serious results in which the CDC and WHO need to be informed. After this they identify several clusters all over the world.
- 12. What is the role of these agencies?** The role of the CDC is controlling the spread of infectious diseases and creating a vaccine. The role of WHO is preventing infectious diseases and researching and tracking origins.
- 13. What is the time frame from onset to manifestations of symptoms i.e. incubation period and then to death?** 4 days
- 14. What are the actions taken by the CDC in terms of containing the infection?** They are identifying people who have had contact and or showing symptoms and placing them under quarantine.
- 15. What is an "R naught" (R_0) ?** Reproduction rate of a virus.
- 16. What do the investigators do to protect themselves?** The investigators wear masks, and protective gear over their clothing as well as gloves.
- 17. How do the personnel involved communicate the risks to the public?** They frequently hold press conferences that relate the most current information to the public.

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

19. What does the epidemiologist from the WHO do to track the progression of the disease? She retraces the interactions of patient zero and identifies everyone she had contact with where some of the first people to also die of the infection.

20. What is an epidemic? Versus a Pandemic? An epidemic is a rapid spread of disease in a large number of people in a short period of time. A pandemic is an epidemic of disease that has spread across a large region including across continents.

21. What is a quarantine? A restriction of movement of people or goods to prevent transmission of disease.

22. Why does the husband not get sick? What type of immunity does he have? The husband does not get sick because he has natural immunity to the disease.

23. What are the symptoms of the virus? Headache, Coughing, Sore throat, temperature, Sweating, seizures in the later phase.

24. How do they develop a vaccine? They grew the virus in cells to see how it attacked the cells in the body and developed the vaccine from there.

25. How is the vaccine administered? Intranasal

26. Is it a live virus vaccine versus an attenuated virus vaccine? It is a live attenuated virus

What is the difference? A live virus is a weakened form of the virus that is injected to help get an immune response. An attenuated virus is a weakened less vigorous virus also used to help elicit an immune response.

27. What sort of immunity does the vaccine provide? adaptive artificial immunity

28. How can the vaccine be administered to the greatest number of people? In the movie they use a lottery system and draw by birthdays every day and everyone that is born on that day gets the vaccine.

29. How does the environment, transportation, communication, essential services, government, and health care facilities get involved? The National Guard and army start road blocking and shutting down travel in and out of big cities and across state lines. The army delivers MREs to communities. The news stations were keeping the public up to date about the virus. Government went online and the president was moved underground. The world basically shut down and there were riots and a high rise in crime.

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

Explain your opinion? Local, national and global politics absolutely play a role in the development and distribution of vaccines. Unfortunately the world we live in it seems that no one wants to do good and just help the world. Someone has to profit or receive the credit for saving people. The world needs to put its ego aside and worry about doing the right thing and saving lives.

31. Does it make a difference if there is a rush to develop the vaccine? I feel that there is no point in rushing the vaccine because it only prevents people that have not gotten the virus from getting it, it does not prevent sick individuals from getting better.

32. Does it make a difference that a vaccine may have other side effects? Ex: 1976—Swine Flu vaccine. The situation in the movie presented the option of either vaccinating to prevent the spread or continue to see the death toll climb and possibly wipe out the world.

33. 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. The primary prevention methods were vaccinating, social distancing and quarantining people in their communities. Secondary prevention were screening and testing people who were exposed. The tertiary prevention was trying to treat the symptoms and keep patients comfortable.

34. What are the steps that a community needs to do to respond to an infectious disease outbreak? The community would need to shut down non-essential businesses and order a mandatory stay at home order. The community leaders would need to stay in communication for everyone and stay up to date on the latest recommendations from professional agencies.