

N442 Contagion Video handout

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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, the doctor admits to not knowing the answer but tries to console the man and offer solutions.

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

18

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

2,000-3,000 x per ~~minute~~ day About 300 3-5 x a minute
times an hour

3. Identify the chain of infection:

Bat → pig → ~~the~~ butcher → chef → lady of Minneapolis

4. What is/are the infectious agent?

Virus

5. What diseases did they rule out?

Flu, Polio, measles, SARS, bird flu

6. What is the reservoir?

Bats + pigs

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

Respiratory tract → droplet, contacts

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

Transmission from object; NO, it cannot
the object that was touched

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

They look at the genetic makeup of the virus

10. What agencies get involved?

CDC WHO Congress/government
Homeland Security National guard

11. What precipitates these agencies getting involved?

~~Homeland security determined~~
Determining + controlling the threat of the outbreak

12. What is the role of these agencies?

Homeland Security determining if the outbreak is an act of war/bio
National guard/government work to close down airports/transportation
CDC+WHO works to control disease + gather information

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

24-48 hrs
less than 10 days

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

Putting those who are sick in quarantine + those exposed in isolation

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

Reproductive rate of the virus

16. What do the investigators do to protect themselves?

They wear PPE → gown, gloves, mask, goggles/shield

17. Calculate the mortality rate from the disease in the first 7 days in Minneapolis? ~~20%~~

~~89,000 cases 200,000~~
2000 - 25%

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

The epidemiologist is watching footage of the Minneapolis wife in Hong Kong.

19. What is an epidemic? versus a Pandemic?

Epidemic is when a disease affects a specific region in a limited area. A Pandemic is global + spreads across countries.

20. What is a quarantine?

Time + place of isolation to prevent the spread of the infection.

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

He doesn't get sick because he has natural immunity

22. What are the symptoms of the virus?

cold-like symptoms, sneezing, cough, headache, congestion, fever, seizures, coma, death, sore throat

23. How do they develop a vaccine?

They put the infection in cells of pigs, chicken + see how it reacts. Try to grow the virus in lab. Determine once infected if antibodies form

24. How is the vaccine administered?

They first call out birthdays + if you have that day you get the vaccine.

Given orally

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

Live

What is the difference?

A live vaccine contains a weakened but alive form of disease. Attenuated uses a killed 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?

They can give vaccine to large cities + have them admin them at clinics/stores/parking lots

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

They work as agents to prevent spread of disease. They try to help those in need with food + supplies

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?

Areas all have people who do not believe in vaccines + refuse to get them. Political leaders will use this to gain followers + ultimately influence³ the distribution especially within smaller countries.

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

NO, it still has to be tested + approved before administration

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

Yes, the Swine Flu vaccine killed people. People will be hesitant to get a new vaccine since side effects may be serious or unknown.

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: | Secondary | Tertiary |
| - vaccination | - screening | - quarantine once sick |
| - educate ab transmission | | - rehab |

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

Become aware + acknowledge. Follow + enforce guidelines provided by the CDC. Help each other + follow social distancing + infection control precautions. Get vaccinated!