

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 did not show any compassion to the patient's situation to the loss of the wife.

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

100-150 times

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

2,000 - 3,000 times a day, 300 in an hour

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?

agents that are contagious and could spread to other people by talking or touching others.

5. What diseases did they rule out?

SARS, H1N1, flu, smallpox, polio, meningitis, cephalitis

6. What is the reservoir?

humans
fomites

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

entry: hands, nose, mouth

exit: coughing, sneezing, handshakes, hugging

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

Fomites are transmission from surfaces

No, virus can't live on a box that long

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

Contact tracing

10. What agencies get involved?

CDC, WHO, FEMA, state/local departments

11. What precipitates these agencies getting involved?

Finding patient 0, find the cause of the outbreak, how to stop the disease from spreading

12. What is the role of these agencies?

Find the source of the outbreak, and how to prevent it in the future

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?

quarantine suspected cases

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

reproductive rate of virus

16. What do the investigators do to protect themselves?

biohazard air suits, N95, sanitize

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

8 deaths to 47 cases multiplier is 10,000 = 1702

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

Trace exposure of who and where Beth was in contact with
also trace where it originated

19. What is an epidemic? versus a Pandemic?

Epidemic - widespread disease in a community

Pandemic - widespread disease over whole country/world

20. What is a quarantine?

Containment in a room to prevent the spread/contact to others

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

The husband has natural immunity, aka innate immunity
his immune system naturally fought the disease

22. What are the symptoms of the virus?

Seizure, headache, flu-like
can't swallow, fever

23. How do they develop a vaccine?

tested on monkeys, used a dead virus with atropine
to boost immune response

24. How is the vaccine administered?

Intranasally

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

live - revert to the wild and kill the host
attenuated - reduce pathogen but keeps it still viable to the infectious agent

What is the difference? but after it to be harmless

live gives you immunity to the disease, attenuated is the
dead part of virus, given to the body to recognize disease

26. What sort of immunity does the vaccine provide?

active

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

mass distribution to all states and having
multiple mass distributors making the vaccine

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

distribution of vaccine, keeping the public informed
once the disease is identified, they help communicate locations of 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?

they have the authority to authorize the vaccine and
ensure it is manufactured right

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

yes, if the vaccines were to be effective in
preventing / stopping the spread, there needs to be tests

done quickly

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

Yes, it could contain ingredients many are allergic to and could be more life threatening

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.

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

- ① Find patient zero
- ② find a location to set up isolation rooms / beds for those infected
- ③ Set curfews to limit contact with others
- ④ Maintain distance from others
- ⑤ wear masks / gloves / hand sanitizer to reduce spread
- ⑥ set up vaccine clinics

32. Individual

Primary: education on disease, how to prevent, immunizations

Secondary: screen individual for symptoms

Tertiary: treat the disease with medications

Community

Primary: mass distribution of vaccine, education on where to go if contracted

Secondary: screening clinic in neighborhood with most cases

Tertiary: treat the disease with medication.