

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?

Yes, some doctors are very non-therapeutic.

2. How many times do you touch your face during the movie? I was touching it most of the time I think.

What do they quote as the range in which people touch their face in an hour? 2-3k times a day

3. Identify the chain of infection:

the infectious agent, reservoir, portal of exit, mode of transmission, entry, and susceptible host.

Bat, pig, chef's apron, beth, beth's mouth, fomites/aerosols, mouth, others infected.

4. What is/is the infectious agent?

Virus containing bat and pig sequences

5. What diseases did they rule out?

Meningitis, H1N1, Measles, Swine flu, smallpox, polio,

6. What is the reservoir?

Lung and brain cells of humans.

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

Mouth, nose

mouth, nose

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

Binder, peanuts, doorknob, cups, handle on bus, elevator button, push the door, water fountain, poles on the bus, glass at the bus stop. Non-living objects which bacteria travel from person to person, machines at casinos, poker chips, dice, phone

No, the virus did not live on the box for longer than ten days.

9. **What is the process they take to determine what the disease is?**
viral sequencing
10. **What agencies get involved?** CDC, WHO, Minnesota Department of Health, Department of homeland security
11. **What precipitates are these agencies getting involved?**
spread of disease over multiple countries, multiple deaths/infections
12. **What is the role of these agencies?**
 CDC: Provides disease prevention/control, health education, and environmental health for citizens of the united states.
 WHO: Does the same as the CDC, but globally.
 Dept of Homeland Security: Protects borders and regulates the flow of people and products in and out of the united states.
 Minnesota Department of Heath: Same as CDC, but statewide vs. nationally or globally.
13. **What is the time frame from onset to manifestations of symptoms, i.e., incubation period and then to die?** 4 days
14. **What are the actions taken by the CDC in terms of containing the infection?**
Isolate the sick, quarantine those exposed.
15. **What is an “R naught” (R_0)?**
The number of people expected to be infected from one infected person.
R-reproductive rate
16. **What do the investigators do to protect themselves?**
Hazmat suits, masks with eye shields, gloves, disinfect everything, negative pressure rooms, masking patients, hairnets.
17. **How do the personnel involved communicate the risks to the public?**

At first, they were reluctant to tell the public what was happening. Later they recommended: that those with symptoms stay home, reduce travel, avoid crowded places, no handshaking, and wash hands.

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

(15 deaths/87cases) x 100,000= 17,241per/100,000

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

She tracks who has been infected, where they traveled, who they came into contact with, and what activities they were a part of, including items that may have spread the virus to others.

20. What is an epidemic? Versus a Pandemic?

AN EPIDEMIC is a disease that affects many people within a community, population, or region. A PANDEMIC is an epidemic that's spread over multiple countries or continents.

21. What is a quarantine?

Quarantine separates and restricts the movement of people exposed to a contagious disease to see if they become sick.

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

He is immune. innate immunity

23. What are the symptoms of the virus?

seizure-like activity, headache, fever, sweating, lethargy, altered loc, coma, cough, difficulty swallowing

24. How do they develop a vaccine?

Test on different cells.

Created a larger sample of virus-added a fetal bat cell line.

25. How is the vaccine administered?

injection, inhalation

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

What is the difference? Attenuated viruses are live viruses that have been weakened. This is a live attenuated virus.

27. What sort of immunity does the vaccine provide?

active immunity, vaccine-induced

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

Large spaces with multiple administrators. Multiple locations.

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

Many of them shut down their services, including airports, bridges,

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

Explain your opinion? Politics play a significant role in who gets the vaccine first and how many doses are available.

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

Yes, vaccines can be approved on an emergency basis with less research available.

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

Yes, side effects vs. benefits need to be weighed.

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.

Primary: education on handwashing, minimizing exposure

Secondary: screening for those vaccinated, infected

Tertiary: providing therapy for those who have been infected.

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

Listen to recommended advice and do your part to avoid spreading the infection.