

1 Dakota Clayton

## 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?

I think it shows a sped-up version of how the conversation would go, but I think in real-life the doctor would be more sympathetic.

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

A LOT! 100+ times?

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

2,000 - 3,000 times/day

3. Identify the chain of infection:

Agent → surfaces → contact transmission → body entry → infected person

4. What is/are the infectious agent?

Foamites = Something that could be spread by contact → virus, bacteria, etc.

5. What diseases did they rule out?

Measles, HIV, West Nile, meningitis

6. What is the reservoir?

Surfaces

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

Entry: body openings (mouth, etc.) Exit: mouth, nose, etc.

8. What are the fomites? Can the virus live for 6 days on a box? → No!

Fomites: agents that can live on surfaces

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

First, an autopsy is completed and sent to the CDC. After, infectious disease experts analyze and try and determine a specific disease.

10. What agencies get involved?

CDC, WHO, universities

11. What precipitates these agencies getting involved?

Early reports of strange deaths, unknown causes of death, and alerting from health professionals

12. What is the role of these agencies?

Disease management, contact tracing, resource management, etc.

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

It wasn't specified but very quick  $\rightarrow$  only days

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

Isolation of patients and quarantine for the potentially infected

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

How many people will get infected by a sick person

16. What do the investigators do to protect themselves?

lab workers wear full, aerated PPE, others wear gloves & masks.

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

35 dead, unknown amount infected specifically in Minneapolis

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

She meets with local officials, contact traces, interviews, and tries to find ground zero.

19. What is an epidemic? versus a Pandemic?

Epidemic: uncharacteristic, local outbreak      Pandemic: uncharacteristic, wide-spread outbreak.

20. What is a quarantine?

Isolation separate from other humans

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

He has natural immunity  $\rightarrow$  was somehow already immune to the disease

22. What are the symptoms of the virus?

Cough, cold, pounding headache, seizures, fevers

23. How do they develop a vaccine?

Isolate and grow cells, then find substances/treatments that can fight it

24. How is the vaccine administered?

IM & Intranasal

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

It is an attenuated vaccine

What is the difference?

Live virus is a active form of disease, and attenuated are weakened.

26. What sort of immunity does the vaccine provide?

Acquired immunity

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

A large number of local vaccination clinics.

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

All these factors are involved in vaccine administration. They can either hinder or enhance the distribution or administration.

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

Definitely!

Explain your opinion?

We've recently seen the ramifications of politics on vaccine administration and hesitancy, and this will only continue.

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

Potentially, it depends if protocols are skipped along the way.

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

I think it depends on the person. Some would rather  
"roll the dice"

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: Education; social distancing  
Secondary: symptom screening, case tracing  
Tertiary: treatment, support

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

- 1) Disaster response plan
- 2) Resource allotment
- 3) Containment
- 4) Treatment
- 5) Future prevention