

N442 Contagion Video Handout

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- 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, based on limited knowledge on a novel virus.

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

Unknown. Probably similar to the statistic.

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

Average people touch their face 2 or 3 thousand times a day. That is about 83 to 125 times per hour.

- 3. Identify the chain of infection:**

The infected bat dropped a piece of banana in the pig pen. The pig ate the banana and became infected, which was then sold and slaughtered. The chef who was preparing the pig did not perform hand hygiene and went to greet Beth and shook her hand. Beth became immune while the chef possibly had natural immunity.

- 4. What is/are the infectious agent?**

A virus carried from the bat to the pig, pig to human.

- 5. What diseases did they rule out?**

Meningitis and encephalitis are ruled out.

- 6. What is the reservoir?**

The reservoir of an infectious agent is the habitat normally lives, grows, and multiplies. Reservoirs include humans, animals, and the environment.

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

Portals of entry: Inhalation, absorption, and ingestion

Portals of exit: Alimentary, genitourinary, and respiratory

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

Fomites are inanimate objects that, when exposed with to infectious agents, can transfer disease to a new host.

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

Contact tracing is used to determine the disease.

- 10. What agencies get involved?**

The CDC, WHO, Homeland Security.

- 11. What precipitates these agencies getting involved?**

The spread of the infectious agent and increased deaths.

12. What is the role of these agencies?

The CDC works to discover the source of the sickness and develop a vaccine against MEV-1.

The WHO investigates how the outbreak began.

Homeland security wants to set a number of deaths and investigate because there is suspicion that the contagion was intentional.

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

Two days

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

The CDC closes the school and advise anyone feeling sick to stay home. The doctor is also flown to China to find the origin of the virus.

15. What is an "R naught" (R₀)?

R₀ is a figure expressing the average number of cases of an infectious disease arising by transmission from a single infected individual.

16. What do the investigators do to protect themselves?

The investigators wear PPE including N95 masks, hair cap, goggles, gown, and gloves.

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

$8/3300000 = 0.0002\%$

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

The epidemiologist from the WHO conducts contact tracing by traveling to China to find patient zero.

19. What is an epidemic? versus a pandemic?

An epidemic is the rapid spread of disease affecting a large number of people within a community, population, or regions.

A pandemic spreads across a large region, for instance multiple continents or worldwide.

20. What is a quarantine?

A quarantine is a restriction on the movement of people, animals, and goods which is intended to prevent the spread of disease or pests.

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

The husband has natural immunity.

22. What are the symptoms of the virus?

Symptoms include severe headache, difficulty swallowing, and high-grade fever.

23. How do they develop a vaccine?

Using a live virus.

24. How is the vaccine administered?

It was a nasal vaccine in which a dose was inhaled through each nostril.

25. Is it a live virus vaccine versus an attenuated virus vaccine? What is the difference?

Live vaccines use weakened form of the infectious agent.

26. What sort of immunity does the vaccine provide?

The vaccine provides artificial acquired immunity.

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

The vaccine is given out by lottery by birthday drawn.

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

The various facilities become involved by preventing further spread of the virus.

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

Local, national, and global politics do make a difference in the development and distribution of the vaccine.

Explain your opinion?

Politics can make a difference by providing factual information that community members can depend on.

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

The reporter believes the vaccine was rushed and not enough information was gathered on adverse reactions. COVID-19 vaccine developed quickly because the urgency of the pandemic. Due to the urgency there was enough funding to support its rush, as well as, years of research since the 1970s on m-RNA vaccines. The contagion vaccine was also rushed due to the urgency of the spread of MEV-1.

31. Does it make a difference that a vaccine may have other side effects?

1976-Swine Flu vaccine.

Yes; individuals should weigh risks vs. benefits.

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: Prevention by vaccination

Secondary: Teach hand hygiene

Tertiary: Disease management and improve as much as possible their ability to function.

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

disease outbreak?

Hand hygiene should always be a priority learning point. Education programs on covering the mouth with a tissue or the elbows when sneezing or coughing. The use of hand sanitizer when soap and water are not available. Education programs should be provided for proper food handling, especially meats.