

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?
 Yes because the phenomenon is unknown & ~~is~~ They are basing it off of information that they already know & are familiar with
2. How many times do you touch your face during the movie?
 probably alot → I was eating

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

Between "2k-3k times a day"
 "3-5 x every minute"

3. Identify the chain of infection:
 bat → pig → butcher smearing blood on his apron (didn't wash his hands)
~~is~~ & shook hands w/ the wife who spread it in the casino
4. What is/are the infectious agent?
 Nipah virus
5. What diseases did they rule out?
 → measles
 → H1N1
6. What is the reservoir?
 Fruit bat
7. What are the portals of entry? The portals of exit?
 → portal of entry = touching someone infected / their environment (contact)
 → portal of exit = airborne
8. What are the fomites? Can the virus live for 6 days on a box?
 • fomites = inanimate object that can spread a pathogen via touch
 • Can a virus live in a box for 6 days = NO
9. What is the process they take to determine what the disease is?
 → looking at blood samples from various clusters
 → looking at an autopsy from the wife = brain
 → sending to ~~the~~ CDC & Sussman in San Francisco
 ↳ BSL ^{sample} 3 determines what it is by recreating it in a lab ¹

10. What agencies get involved?

- CDC
- health department
- Emergency operation center
- CIA
- WHO
- (PSM4 + BSL4)

later:
→ FDA = Vaccines

11. What precipitates these agencies getting involved?

The ~~woman~~ woman & her son dying & spread of virus to many areas of the world

12. What is the role of these agencies?

To track ~~the~~ the disease process & to try and prevent its spread

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

Incubation period → less than 10 days
Time to death →

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

- isolating the sick
- quarantining the exposed

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

X greater than 4 X $R =$ reproductive process of virus

For how many people are sick → how many people will they likely infect

16. What do the investigators do to protect themselves?

- N95 masks
- gloves
- goggles

(Mearse) didn't wear any protective equipment (when she went to Hong Kong = she got sick & died)
Epidemiologist

17. Calculate the mortality rate from the disease in the first 7 days in Minneapolis? ~~(25-30%)~~

1 in 4 = "25-30%"

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

- Sending epidemiologist to Hong Kong
- visit everywhere Beth (the wife) goes to track who she came in contact w/ (+ watching videos from casino)

19. What is an epidemic? versus a Pandemic?

- epidemic
- pandemic → worldwide spread of infectious disease

20. What is a quarantine?

State, period, & place of isolation → to prevent spread of infectious disease

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

Immunity → Passive?

22. What are the symptoms of the virus?

- seizures → cough (barky)
- headache (severe)
- can't swallow
- fever

23. How do they develop a vaccine?

Recreating the virus in a lab → (from a fetal bat) & administering trial vaccines in monkey until one didn't die (trial 57)

24. How is the vaccine administered?

IM → drawing to determine who gets it first by birthdate

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

They tried dead virus first, but the virus couldn't create antibodies = then used herself as a human test-subject

Used live attenuated virus

What is the difference?

Live virus = contains weakened samples of pathogen
attenuated = weakened or inactive forms

26. What sort of immunity does the vaccine provide?

Active immunity

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

- suggestion of putting in water supply
- drawing of birthdates to determine who gets the vaccine

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

Setting up camps for vaccine, complying w/ quarantine, producing updated results, providing 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?

Politicians are a high-authority & are trusted people in the community → Their opinions can influence people getting the vaccine; Different health policies for different states (& different budgets)

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

→ Can't test side effects of vaccine → just trying to stop the virus from spreading
future

* IM @ first
nasal spray later *

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

1976—Swine Flu vaccine.

→ Ultimately no = matter of ~~is~~ possible future sickness vs. death = lesser of two evils

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 — limit exposure/educate on limiting exposure

secondary — start testing, vaccine

third — Education/isolation

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

→ wash hands

→ social distancing

→ no ~~hand~~ handshaking

→ staying home

→ DON'T PANIC

→ vaccinate

→ cover mouth in elbow when coughing/sneezing

• notes: → pt. zero = Beth emhoff
→ setting up a ward for sick

→ nurses on strike → no policy in place to keep sick away from nonsick

→ forsythia = claims to be cure = eventually falsified

→ people dying faster than they can keep up = running out of body bags

→ influential people like (Crumswell?) influence people to think that government & drugstores work hand-in-hand to gain ~~a~~ a profit

→ transmission: first come in contact w/ infected person or what they touch

→ virus ~~is~~ mutating

→ R_0 = ~~is~~ went from 2 to greater than 4

→ day 26 = 2.5 million deaths worldwide

→ MEV2 vaccine developed

→ people terrorize government officials (kidnapping & breaking and entering) to get vaccine

gov. ← ~~the~~ guy (Dr. Cheever) gives his vaccine to janitor's son & then puts on bracelet = Risk others lives