

H1N1 Influenza



Swine Flu

- Common in Swine, first isolated 1930
- Usually occurs in late fall and winter, just like people
- High rate of illness, low death rate in pigs
- Pig farmers vaccinate their pigs for the flu
- In the U.S. there may be 1 case of people catching the flu from pigs every other year
- Usually mild flu-like symptoms

H1N1 Influenza

NOT Swine Flu!

- People thinking you only catch it from pigs
- People thinking if they don't eat pork they will be OK
- So not taking the correct precautions
- Pork industry having a fit
- In Israel was always named "Mexico Flu"
- Egypt ordered the killing of all pigs, but could sell the meat????

H1N1 Influenza

- 1976, Fort Dix New Jersey
- First isolated H1N1 from humans NOT in contact with pigs
- Similar to 1918 pandemic strain
- Uh Oh!

H1N1 Influenza

- 1988 outbreak in pigs in Wisconsin
- Multiple human infections in handlers
- Evidence of transmission from patient to healthcare workers
- Uh Oh!

More Information than you want

This is just Cathy “showing off”

- Influenza viruses are RNA viruses
- Family “Orthomyxoviridae”
- “Myxo” refers to fact they infect mucus membranes
- Human flu viruses
 - Type A
 - Type B

This will show up later

- Subtypes based on two surface proteins
- Hemagglutinin (H)
- 16 different type H
- Neuraminidases (N)
- 9 distinct type N
- Two most important subtypes
- A (H3N2) greater mortality
- A (H1N1)
- (A (H5N1) Avian)

Still More Trivia

- Influenza viruses change their structure,
- genetic reassortment
- H1N1 reassortment of 4 strains
- human flu
- North America swine
- Eurasia swine
- North American Avian
- **Brand New, Never Seen Before!!!**

Influenza Pandemics

- A flu pandemic occurs when a new flu virus, against which the human population has no immunity appears




Influenza Pandemics

- History records show at least 10 pandemics in the last 300 years
- 1918, the Spanish Flu, as many as 50 million people perished worldwide
- They did not have the mobile society we have now!
- Disruption of “everyday” life

Influenza Pandemic

- Spread in “waves”, lasting 6 to 8 weeks
- In 1918 there were 3 “waves”
- Those who survive the flu in the first “wave” are immune in the subsequent “waves”
- Those who don’t catch it the first “wave”, may still get sick

How Do I Catch it?

- Thought to be the same as the seasonal flu
- Droplets from coughing, sneezing
- About 3 to 6 feet distance
- Touching something with the virus on it, then touching your mucus membranes
- mouth  nose  eyes 

Stubborn Little Sucker

- Virus thought to live on hard, non-porous surfaces up to 48 hours
- Thought to live on paper up to 12 hours



Tricky Little Sucker

- Victims can spread the virus starting 1 day *Before* they have symptoms
- Thought to spread the virus for up to 7 days after they have symptoms



Prevention

- Cover your cough
- Wash your hands
- Social distancing
- Avoid touching your nose, mouth, eyes
- “Mommy Things”
 - get plenty of sleep
 - eat nutritious foods
 - drink plenty of fluids
 - be physically active

Prevention

- Antiviral Drugs
 - Tamiflu (pills and liquid)
 - Relenza (inhaled powder)
 - To prevent catching the flu
- or**
- To lessens the symptoms and duration

Tamiflu

- Interferes with the Neuraminidase, virus can't replicate
- Must be taken within 2 days of onset of symptoms
- Most common side effect, nausea
 - Take with food
- Take for full 5 days, even if symptoms better
- Safety of repeated courses not established

Marathon Tamiflu

- Will receive e-mail from corporate linking to a web-site
- Log on using your employee number
- Complete a questionnaire
- Spouse and dependents, who are covered by our health plan, complete a questionnaire too, using employee number

Marathon Tamiflu

- Questionnaires reviewed by an MD
- Qualified people (estimate 98%) will receive med by mail with instructions
- **Hold** med until symptoms, call your MD and ask if you should start the medication
- **NOT** intended for prevention

Symptoms

- Fever
- Extreme fatigue
- Muscle and Body aches
- Joint Aches
- Headache
- Eye Pain
- Sore Throat
- Stuffy or runny nose
- Dry cough initially, may become deep, hacking, painful cough
- No appetite for food or desire to drink fluids

Treatment

- Tamiflu in first 2 days
- Rest in bed
- Acetaminophen(Tylenol) or Ibuprofen(Motrin, Advil) *every* 4 to 6 hours to reduce fever, headache, pain
- **Do NOT give Aspirin to children under the age of 18, may cause Reyes Syndrome**

Treatment

- If you have a high fever, do not cover with a lot of blankets. Holds the heat in and raises the temp. Enough covers to prevent chills only.
- Give light foods. Fluids are more important than food, especially in the first days when the fever may be highest

When to See the Doctor

- If short of breath or breathing rapidly at rest
- If skin is dusky or bluish in color
- If disoriented, “out of it”
- If so dizzy or weak that standing is difficult
- If has not urinated in 12 hours
- If symptoms improve but then return with fever and worse cough

When to See the Doctor

- Fever that does not respond to Tylenol or Ibuprofen
- Severe or persistent vomiting
- Patient has a chronic illness (asthma, diabetes, heart condition)

When to See the Doctor

- Children can deteriorate *VERY* rapidly
- If they are not making urine
- If they cannot make tears
- If they are so irritable that the child does not want to be held
- Flu like symptoms improve but then return with fever and worse cough

If you get Sick

- Stay Home!
- Call your doctor about starting the Tamiflu right away
- Take care of yourself!

- Must wait 48 hours *AFTER* symptoms go away before returning to work
- See the nurse before you can come back to work

- Do not need a “Return to Work” note from a doctor

Questions?

