**SWINE FLU AND ITS MANAGEMENT**

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**ABSTRACT**

Swine influenza (also called pig influenza, swine flu, hog flu and pig flu) is an infection by any one of several types of swine influenza virus. Swine influenza virus (SIV) or S-OIV (swine-origin influenza virus) is any strain of the influenza family of viruses that is endemic in pigs (*The Merck Veterinary Manual*, 2008). The outbreak began in the state of Veracruz, Mexico, with evidence that there had been an ongoing epidemic for months before it was officially recognized as such (Matsuzaki *et al.*, 2002). The Mexican government closed most of Mexico City's public and private facilities in an attempt to constrain the spread of the virus. However, the virus continued to spread globally, clinics in some areas were overwhelmed by people infected, and the World Health Organization (WHO) and US Centers for Disease Control (CDC, 2009) stopped counting cases and declared the outbreak to be a pandemic.

**CLASSIFICATION**

Of the three genera of influenza viruses that cause human flu, two also cause influenza in pigs, with influenza A being common in pigs and influenza C being rare (Heinen PP, 2003). Influenza B has not been reported in pigs. Within influenza A and influenza C, the strains found in pigs and humans are largely distinct, although because of reassortment there have been transfers of genes among strains crossing swine, avian, and human species boundaries.

**TRANSMISSION**

The main route of transmission is through direct contact between infected and uninfected animals. These close contacts are particularly common during animal transport. Intensive farming may also increase the risk of transmission, as the pigs are raised in very close proximity to each other. People who work with poultry and swine, especially people with...
intense exposures, are at increased risk of zoonotic infection with influenza virus endemic in these animals, and constitute a population of human hosts in which zoonosis and reassortment can co-occur.

According to CDC, symptoms include fever, cough, sore throat, body aches, headache, chills, fatigue diarrhea and vomiting. The most common cause of death is respiratory failure. Other causes of death are pneumonia (leading to sepsis), high fever (leading to neurological problems), dehydration (from excessive vomiting and diarrhea) and electrolyte imbalance. Fatalities are more likely in young children and the elderly.

**PREVENTION AND TREATMENT**

The use of vaccines on swine to prevent their infection is a major method of limiting swine to human transmission. Risk factors that may contribute to swine-to-human transmission include smoking and, especially, not wearing gloves when working with sick animals thereby increasing the likelihood of subsequent hand-to-eye, hand-to-nose or hand-to-mouth transmission (Ramirez A et al, 2006). Recommendations to prevent spread of the virus among humans include using standard infection control against influenza. This includes frequent washing of hands with soap and water or with alcohol-based hand sanitizers, especially after being out in public. Chance of transmission is also reduced by disinfecting household surfaces, which can be done effectively with a diluted chlorine bleach solution.

Vaccines are available for different kinds of swine flu. The U.S. Food and Drug Administration (FDA) approved the new swine flu vaccine for use in the United States on September 15, 2009. Studies by the National Institutes of Health (NIH) show that a single dose creates enough antibodies to protect against the virus within about 10 days (CDC, 2009). If a person becomes sick with swine flu, antiviral drugs can make the illness milder and make the patient feel better faster. For treatment, antiviral drugs work best if started soon after getting sick (within 2 days of symptoms). Beside antivirals, supportive care at home or in hospital, focuses on controlling fevers, relieving pain and maintaining fluid balance, as well as identifying and treating any secondary infections or other medical problems. The U.S. Centers for Disease Control and Prevention recommends the use of Tamiflu (oseltamivir) or Relenza (zanamivir) for the treatment and/or prevention of infection with swine influenza viruses.

**DIETARY MANAGEMENT**
Diets rich in vitamins and minerals helps to improve the immune system, which further reduces the risk of Swine flu. Vitamin C promotes resistance to infection through its involvement in immunological activities of leucocytes, production of interferon, the process of inflammatory reaction, and the integrity of mucous membranes. Vitamin D can boost immunity by producing antimicrobial peptides. Zinc reduces risk of respiratory infections. Adequate sleep and proper physical exercises improve the immune system.

REFERENCES


http://www.cdc.gov/h1n1flu/specimencollection.htm