



Swine Barn, 2008 Tennessee State Fair, Nashville, TN.

PIC QUESTION OF THE WEEK: 5/04/09

Q: What are the current recommendations for the treatment of *Swine Flu*?

A: The topic of swine influenza (flu) has dominated the news in recent days and the World Health Organization (WHO) has just raised the worldwide pandemic alert level to Phase 5 (maximum of 6). Over 1,000 cases and 149 deaths have been reported in Mexico, while 40 confirmed cases and one fatality have been reported in the United States as of April 29, 2009. The cases of severe respiratory distress due to swine flu in Mexico have affected all age groups, including the young and otherwise healthy adults. *Swine flu* is an influenza A (H1N1) virus that normally exists as a porcine disease, but can occasionally be transmitted to humans. Forms of this illness have had a history of epidemic and pandemic distribution. The most destructive was the *Spanish Flu* pandemic of 1918 that claimed 40 to 50 million lives worldwide. In 1976, there was a small outbreak and one fatality reported at an army base in Ft. Dix, New Jersey. This resulted in the development of the first swine flu vaccine and a mass effort to prevent spread of an influenza strain that had not circulated in over 50 years. Nearly 40 million Americans were vaccinated over a two month time period; however, the program was suspended after reports of over 500 cases of Guillain-Barre syndrome (GBS) and 32 deaths due to the vaccine. GBS is generally a reversible, demyelinating condition associated with sensory and motor dysfunction that begins in the lower extremities, and can move proximally to affect even respiratory function. There are currently no vaccines for this H1N1 (H=hemagglutinin; N=neuraminidase) strain of the virus. Neuraminidase inhibitors such as oseltamivir (Tamiflu®) and zanamivir (Relenza®) are active against the virus and are the preferred agents for prevention and treatment of the infection. The government plans to release 12.5 million doses of the drugs from its stockpile. Oseltamivir appears to reduce the *median time to improvement* by 1.3 days while improvement may be noted a median of 2.5 days less with zanamivir. Both drugs should be initiated within 48 hours of the onset of symptoms. Oseltamivir is administered orally at a dose of 75 mg twice daily, while zanamivir is dosed as two oral inhalations twice daily. Both are given for a period of 5 days. Patients should maintain healthy hygiene practices such as regular hand washing and covering the mouth and nose when sneezing or coughing as the virus is generally spread as airborne droplets. Swine flu cannot be spread by eating properly cooked pork or by consuming medications made from pork products (such as *Armour Thyroid*®). For more information and recent updates, log onto the CDC, FDA, or ASHP websites listed below.

References:

- ASHP. U.S. confirms 40 swine flu cases. <http://www.ashp.org/import/news/HealthSystemPharmacyNews/-newsarticle.aspx?id=3070> g. Accessed April 28, 2009.
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- FDA. Annex II: Lessons learned from 1976 swine influenza program- draft. <http://www.fda.gov/ohrms/-dockets/dockets/04s0212/04s-0212-sup0001-15-Draft-Annex-11-vol3.pdf> v. Accessed April 27, 2009.

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(Accessed April 27, 2009)

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The PIC Question of the Week is a publication of the Pharmaceutical Information Center, Mylan School of Pharmacy, Duquesne University, Pittsburgh, PA 15282 (412.396.4600).