



Biosurveillance Update

Influenza

According to the CDC and sources on ProMed, the number of influenza cases and activity increased substantially during the reporting period of November 18 through November 24th.

The proportion of visits for ILI was at the national baseline. Four states reported widespread influenza activity including New York. Five states reported above regional levels of patients with ILI during the week stated above. Deaths attributed to influenza or related pneumonia remain below the epidemic threshold during this reporting period according to the Cities Mortality Reporting System. No pediatric deaths have been reported, although there have been two pediatric deaths total during the 2012-2013 season.

For the 2012-2013 Influenza Season, there have been both A and B type viruses identified. The CDC has antigenically characterized a sample of 140 viruses randomly taken from seasonal samples since October 1st, 2012. These samples have yielded 2 A(H1N1) viruses, 90 A(H2N2), and 48 B viruses. The characterizations are as follows:

- The two A/H1N1 viruses have been characterized as A/California/7/2009 – like and is a component of the Northern Hemisphere vaccine for the 2012-2013 season and is susceptible to both.
- All of the A/H3N2 have been characterized as A/Victoria/361/2011 – like and is a component of the Northern Hemisphere vaccine for the 2012-2013 season.
- 71% of the B viruses are part of the B/Yamagata lineage and 29% of the viruses are of the B/Victoria lineage. These have been characterized as B/Wisconsin/1/2010 – like and are a component of the Northern Hemisphere vaccine for the 2012-2013 season.

All of the viruses tested show susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. There are high levels of resistance among A(H1N1) and A(H3N2) to adamantanes (amantadine and rimantadine). Adamantanes are not effective against the B viruses.

The A(H3N2)v reported in the fall of 2012 has not disappeared. Since the outbreak began, there have been a number of reports related to attendance at local agricultural fairs. A recent report of an infection of the new isolate A(H3N2)v indicates that the patient had no prior contact with swine in the week leading up to the illness, however. A small number of cases have indicated human to human transmission, but there is no evidence from these cases of ongoing transmission. A(H3N2)v is not part of the 2012-2013 vaccine; however, it is susceptible to the antiviral drugs noted above.