Epidemiological Alert:
Infection with influenza A (H3N2)v

11 August 2012

Current situation

On November 22, 2011, the United States of America - International Health Regulation National Focal Point (USA IHR-NFP) reported a cluster of cases of human infection with influenza virus A (H3N2)v[1]. Subsequently, between December of 2011 and July of 2012, 12 additional cases were reported.

As of August 10, 2012, the total number of confirmed cases of influenza A (H3N2)v increased to 153[2] most of them detected in two states of the United States.

Most cases occurred in children, and all had been in contact with pigs prior to the onset of symptoms. Investigation indicated limited human-to-human transmission in some cases reported in 2011.

It is possible that sporadic infections and outbreaks will continue to be detected in the United States, and cases resulting from limited human-to-human transmission are possible.

The signs and symptoms among cases have generally been consistent with seasonal influenza, and include the following: fever, pharyngitis, myalgia, and headache. Two cases required hospitalization; however, no deaths have been recorded.

Available data from limited serological studies indicate that children would have little to no pre-existing immunity to this new virus (whereas adults may have some pre-existing immunity). The current seasonal vaccine for the northern hemisphere will not protect against this variant influenza A (H3N2)v virus.

Laboratory

All cases had confirmed infection by a variant influenza A (H3N2) virus. This virus has different virologic characteristics from current circulating seasonal influenza viruses in humans, and has a new gene constellation: seven genes from the triple reassortant swine A(H3N2) viruses known to have been circulating in pigs in North America, and the M gene from an A(H1N1)pdm09 virus, a seasonal virus currently circulating among humans. The M gene could confer increased transmissibility among humans.

The Pan American Health Organization / World Health Organization (PAHO/WHO) would like to stress to its Member States the recommendations to maintain and strengthen routine surveillance activities, and to promote and disseminate influenza case management and prevention information to the public. The Organization encourages Member States to update and implement plans to respond to public health emergencies.

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[1] http://new.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=15786&Itemid=1091
[2] http://www.cdc.gov/flu/swineflu/influenza-variant-viruses-h3n2v.htm#table

Recommendations:

The PAHO/WHO recalls that the following recommendations continue to be applicable:

- Routine influenza surveillance activities should be continued, including both epidemiological and laboratory surveillance. Epidemiological surveillance should include surveillance of ambulatory influenza-like illness (ILI)/acute respiratory infection cases, as well as of hospitalized severe acute respiratory infection (SARI) cases. Clinical samples should be collected from these cases and tested by real-time rRT-PCR for influenza. When a laboratory uses kits provided by the U.S. Centers for Disease Control and Prevention (CDC), routine protocols for testing should be followed, including testing of all influenza A positive cases using the subtyping kit primer/probe sets: H1, H3, pdm InfA, and pdm H1.

- All influenza-positive specimens that are unsubtypeable and specimens with inconclusive or unexpected subtyping results should be forwarded to the WHO Collaborating Center and CDC in Atlanta, as soon as possible for further testing.

- Influenza should be considered a possible diagnosis in any patient with respiratory symptoms admitted to a healthcare facility. Some population groups are more susceptible to developing serious infections, and require special attention; these include pregnant women and people suffering from chronic diseases. These patients should be treated with antivirals (e.g. oseltamivir) at the onset of symptoms, even in the absence of laboratory confirmation of influenza. The earlier oseltamivir is administered the higher its success rate.

- The public should be reminded that the primary form of influenza transmission is through interpersonal contact or contact with infected animals or contaminated settings. Hand washing is encouraged as a prevention measure; knowledge of "respiratory etiquette" can also help prevent the spread of the virus. People with fever should avoid leaving their homes and going to work or to other public places, until the fever is gone. Persons with increased risk for influenza complications (those with underlying chronic medical conditions, pregnant women, or aged under 5 and over 65 years) and those with weakened immune systems should avoid exposure to pigs and swine barns, particularly if ill swine have been identified.

References

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