



Update on Novel Viruses H7N9 and Novel Coronavirus

Public Health authorities from the United States and abroad have posted new information regarding the H7N9 Influenza outbreak in China and the Novel Coronavirus (nCoV) outbreak in the Arabian Peninsula. Although recommendations from the CDC, WHO (World Health Organization) and ECDC (European Center for Disease Control) have not changed, AND THERE ARE NO CASES OF EITHER IN THE US OR EVEN NORTH AMERICA, they do encourage a "cautious watch" approach. In other words, public health, health care providers, and the general public should stay aware of new reports regarding these viruses. Also, if a person develops any febrile influenza-like illness after traveling to an outbreak area, it should be reported immediately to their health care provider. It is important to note that there has been no sustained human-to-human transmission of either H7N9 or nCoV.

The need for monitoring exists because these are novel viruses and as such there is limited immunity in the population. In addition, both viruses have high case fatality rates; currently 25% for H7N9 and 55% for nCoV. There are currently too many unknowns surrounding these viruses, so keeping a careful watch for updates is prudent. It is also be a good time for agencies and individuals to assure that their Pandemic Flu Plans are updated and ready for use should the need ever arise.

A summary follows on each of the outbreak viruses. Links to more information will be provided at the end of each summary. Previous postings provide an introduction into each of these viruses.

Influenza H7N9:

1. All cases have been limited to China with one case reported in Taiwan. There have been a total of 131 confirmed cases with 33 deaths reported as of May 10, 2013. Since the number of new cases have decreased dramatically, China and the WHO are now reporting new cases only once per week. It is unknown if this decrease is due to a natural decline as flu season ends and less birds carry and transmit the virus, to the actions taken by the Chinese, such as closing live bird markets and testing flocks for the virus, or a combination of both. If it is the former, it means that activity could increase again when the Chinese flu season, and the migration of wild birds, begins again in the fall.
2. The very good news is that the ECDC has tested more than 3000 contacts of H7N9 patients and have found no new cases of disease. This supports the current belief that there is little to no human-to-human transmission at this time.
3. The CDC is engaging in routine pandemic preparedness so they can be ready if needed. This includes providing H7N9 PCR test kits to public health authorities, conducting studies on the H7N9 virus to learn as much as they can, and developing a vaccine virus candidate that can be used by interested pharmaceutical companies to begin work on developing a vaccine. The CDC is also testing for anti-viral susceptibility and resistance in samples of the virus to help determine appropriate treatment.

<http://www.cdc.gov/flu/avianflu/h7n9-virus.htm>

<http://www.cdc.gov/flu/spotlights/h7n9-cdc-response.htm>

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http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6218a6.htm?s_cid=mm6218a6_e

Novel Coronavirus (nCoV):

1. Although there have been less cases of confirmed nCoV than H7N9, there is an indication of more human-to-human transmission since there have now been additional cases added to the case clusters previously reported. Also, although most cases have been limited to the Arabian Peninsula; because of global travel, there have also been cases in the United Kingdom, Germany, and France. Clusters of illness, though very small and limited, have been found in the UK and France. These clusters are still under investigation. In Saudi Arabia, another cluster has expanded to a total of 15 cases, with 7 deaths. Most of the cases are considered hospital-related (nosocomial) but two of the cases were family members who had not visited the hospital, causing officials concern that this may indicate transmission in the community. The cluster in France began with a vacationer to Dubai who became sick after his return and was hospitalized. Suspected cases of nCoV have been identified in another male patient who shared a ward/room with the infected patient, a doctor who cared for him, and a nurse who works in the infectious disease unit but it is unknown if she had direct contact with the patient.
2. Although this is a novel (newly emerged) Coronavirus, we have recent experience with another Coronavirus, the one that caused SARS. Colds are also caused by a Coronavirus. As we know, these types of viruses can develop efficient human-to-human transmission under the right conditions.
3. There is concern over all the unknowns regarding this virus. This includes what animal is linked to exposure of humans to the virus, the method of transmission, as well as the fact that there is no test for prior infection (antibodies). This means that public health authorities from all over the world are pulling out all the stops to find answers. A team of international experts is supposed to go to Saudi Arabia to help organize a process for developing expertise on this virus.
4. The WHO has reported that currently, those treating patients sick with this virus seem to respond best to transfusions with blood plasma from those patients that have recently recovered from the disease.

<http://www.cdc.gov/coronavirus/ncv/>

http://www.who.int/csr/disease/coronavirus_infections/en/

<http://www.cidrap.umn.edu/cidrap/content/other/sars/news/may0813corona.html>

Here are some links for pandemic preparedness:

<http://www.hhs.gov/pandemicflu/plan/pdf/S04.pdf>

http://www.usfa.fema.gov/downloads/pdf/PI_Best_Practices_Model.pdf

<http://www.pandemicflu.gov/plan/healthcare/emgncymedical.html>

<http://www.fema.gov/planning-templates>

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http://www.fema.gov/pdf/about/org/ncp/pandemic_influenza.pdf

<http://searchdisasterrecovery.techtarget.com/Using-a-pandemic-recovery-plan-template-A-free-download-and-guide>

http://www.osha.gov/Publications/OSHA_pandemic_health.pdf

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