

Atypical Pneumonia Outbreak in China – Updates #1 & #2 for 1/7/20 and 1/8/20

Late Afternoon/Evening Update for 1/8/20 -- An Organism Identified:

In the afternoon hours of the January 8th, multiple American news agencies, citing sources close to the ongoing investigation, as well as from the WHO, began posting on-line articles that state a novel coronavirus has been identified in some of the hospitalized patients associated with the Wuhan, China pneumonia outbreak. It is important to note that, per the Wall Street Journal, it has not been confirmed to be found in all 59 pneumonia cases. Although there was no confirmation of this to be found on WHO, CDC or other official (government or quasi-government) public health websites, a well-respected organization, associated with the University of Minnesota, School of Public Health, known as the Center of Infectious Disease Research and Policy (CIDRAP), also published a report on the new finding. The CIDRAP article goes on to explain more about the emergence of coronaviruses and their recent impact on man, as well as provide expert opinions and explanations from a coronavirus expert from the University of N.C at Chapel Hill and another from the University of Texas Medical Branch. A link to the CIDRAP publication including all this information and more, as well as links to several US media agencies, including the Wall Street Journal article, are included below. There are still more questions to be answered and a determination to be made if all of 59 patients show infection from this novel virus, but it seems like a really good start.

It is reasonable to point out, when there are emerging diseases and novel viruses identified, frequent updates and even changes in information such as case definition, mode of transmission, pathogen reservoir, and recommendations for appropriate PPE, safe isolation precautions disinfection products and processes, as well as testing and treatment options will occur as more science emerges.

CIRAP Article Reporting on the Identification of a Novel Coronavirus identified:

<http://www.cidrap.umn.edu/news-perspective/2020/01/virologists-weigh-novel-coronavirus-chinas-outbreak>

Wall Street Journal Article about the Novel Virus:

<https://www.wsj.com/articles/new-virus-discovered-by-chinese-scientists-investigating-pneumonia-outbreak-11578485668>

CNBC Online Article on the Identified Novel Virus:

<https://www.cnbc.com/2020/01/09/china-pneumonia-outbreak-in-wuhan-may-be-linked-to-sars-who-says.html>

Washington Post Article on Same:

https://www.washingtonpost.com/world/asia_pacific/specter-of-possible-new-virus-emerging-from-central-china-raises-alarms-across-asia/2020/01/08/3d33046c-312f-11ea-971b-43bec3ff9860_story.html

January 7th and early 8th Updates:

All of the answers are not yet known, and a few of the outstanding ones are important and need to be investigated further, but there is some good news on the Wuhan outbreak. The WHO, CDC and US State Department have all posted information and risk assessment on the outbreak, have systems in place for monitoring, and have provided recommendations within their purview.

On January 8th, the CDC issued a Health Alert Advisory on this outbreak advising US practitioners to consider pneumonia associated with the Wuhan cluster if patients present with severe respiratory symptoms, had traveled to Wuhan since 12/1/19, had an onset of symptoms within two weeks of returning, and no other known diagnosis to explain the illness. If any of these patients are identified, health care providers are asked to notify their infection control personnel and local and state health departments immediately. State health departments should then notify the CDC if there is a case under investigation by calling the CDC's Emergency Operations phone line.

To increase protective measures, several countries, including Hong Kong, Singapore, and Taiwan were quick to put up traveler checkpoints to screen travelers coming from Wuhan, China. More countries, such as South Korea, Vietnam, and others are following suit. Patients within Wuhan, China with fever and signs of respiratory illness are being isolated in area hospitals and tested to see if they fit the current case definition and are, therefore, part of the outbreak. In those countries that have initiated screening for fever and/or signs of respiratory illness, patients that meet the case definition have also been isolated, and hospitalized, for testing to see if they show the same symptomatology as the Wuhan cluster. Many of these patients have been discharged when found to have influenza, adenoviruses or rhinoviruses, parainfluenza 1, or any of the many normal types of respiratory illnesses seen at this time of year.

After several days of new cases being added, the number of cases reported has plateaued in the past couple of days. This is thought to possibly be because the Seafood and Animal Market has been closed down since Jan 1 and cleaning and disinfection of the market was carried out. The market remains closed at this time, with police with appropriate PPE in constant attendance. And, although the causative organism still has not been identified, several pathogens or groups of pathogens have been crossed off the list of possibilities. Those organisms not causing this outbreak include influenza, avian flu, adenovirus, and the coronaviruses SARS and MERS-CoV. Many virologists and other infection control and public health specialists have theorized that this may be a zoonotic pathogen that has now jumped to humans since time working in, or being near, the South China Seafood Wholesale Market seems to be related to the cluster. The market sold seafood and other wild animals, dead and alive, including chickens, bats, marmots and others.

An updated list of cases includes 59 patients, 7 of which are severely ill, from a time range of 12/12 through 12/29/19. All patients who have fever and respiratory symptoms, and

have time near the Wuhan market are considered part of the cluster until proven otherwise. The most common symptom is fever, and some have difficulty breathing or shortness of breath, and on x-ray, have bilateral lung infiltrates (pneumonia). There has been no clear patient-to-patient transmission and there have been no deaths reported from this outbreak. 163 close contacts are being monitored for signs or symptoms of the disease.

The concern amongst public health providers and government agencies is that China has previously not been completely open with outbreak information, including 2003 with the onset of SARS. They withheld information about the number and severity of the cases, and did not seek the help they needed in sequencing the virus in a timely fashion, to prevent the epidemic from spreading. This time around, they seem more forthcoming but the WHO and others have asked for specifics about viral testing, samples, a total list of what pathogens have been ruled out, and whether only those that were known to have been at the market are part of the catchment group, or if anyone from Wuhan with similar presentations, are also part of the isolated and tested group. During the SARS outbreak, as well as in MERS ongoing case investigations, although there have been a large number of patients with severe disease and a fairly high fatality rate, there have also been some with very mild or even asymptomatic infections that might have been missed which pointed to person-to-person transmission when there wasn't a primary exposure. There is concern about this outbreak, if there are not enough people that might be exposed and infected tested, even if not showing significant symptoms, which could suggest person-to-person transmission, then it might be missed. The spread of the virus to health care personnel and contacts was also a clue of person-to-person transmission and that has not been seen in the Wuhan outbreak.

WHO Notice of the Wuhan Pneumonia of Unknown Etiology:

<https://www.who.int/csr/don/05-january-2020-pneumonia-of-unkown-cause-china/en/>

CDC Health Advisory Alert for Pneumonia in Wuhan, China:

<https://emergency.cdc.gov/han/HAN00424.asp>

CDC Travel Notice Regarding Pneumonia Outbreak in Wuhan:

<https://wwwnc.cdc.gov/travel/notices/watch/pneumonia-china>

State Department Travel Notice and Recommendations for Assistance for the Outbreak:

<https://china.usembassy-china.org.cn/health-alert-pneumonia-of-unknown-cause-in-china/>

Center for Health Protection (CHP) of Hong Kong Home Page for Severe Respiratory Disease...with a Novel Infectious Agent (1/7/20):

<https://www.chp.gov.hk/en/features/102465.html>



Every Record. In Real Time. Automatically.

CHP of Hong Kong Severe Respiratory Disease with a Novel Infectious Agent Fact Page:

<https://www.chp.gov.hk/en/healthtopics/content/24/102466.html#>

CIDRAP Update on Pneumonia Outbreak in China 1/7/20:

<http://www.cidrap.umn.edu/news-perspective/2020/01/nations-step-screening-and-await-word-chinas-pneumonia-outbreak>