Pneumonia outbreak in China

Date: Wednesday 8th January 2020

On 31 December 2019, the WHO China Country Office was informed of cases of pneumonia of unknown etiology (unknown cause) detected in Wuhan City, Hubei Province of China.

As of 3 January 2020, a total of 44 patients with pneumonia of unknown etiology have been reported to WHO by the national authorities in China. Of the 44 cases reported, 11 are severely ill, while the remaining 33 patients are in stable condition. According to media reports, the concerned market in Wuhan was closed on 1 January 2020 for environmental sanitation and disinfection.

The causal agent has not yet been identified or confirmed. On 1 January 2020, WHO requested further information from national authorities to assess the risk. National authorities report that all patients are isolated and receiving treatment in Wuhan medical institutions. The clinical signs and symptoms are mainly fever, with a few patients having difficulty in breathing, and chest radiographs showing invasive lesions of both lungs.

According to the authorities, some patients were operating dealers or vendors in the Huanan Seafood market. Based on the preliminary information from the Chinese investigation team, no evidence of significant human-to-human transmission and no health care worker infections have been reported.

Public Health Response
National authorities have reported the following response measures:

• One hundred and twenty-one close contacts have been identified and are under medical observation;
• The follow-up of close contacts is ongoing;
• Pathogen identification and the tracing of the cause are underway;
• Wuhan Municipal Health Commission carried out active case finding, and retrospective investigations have been completed;
• Environmental sanitation and further hygiene investigations are under way.

WHO is closely monitoring the situation and is in close contact with national authorities in China.

WHO risk assessment
There is limited information to determine the overall risk of this reported cluster of pneumonia of unknown etiology. The reported link to a wholesale fish and live animal market could indicate an exposure link to animals. The symptoms reported among the
patients are common to several respiratory diseases, and pneumonia is common in the winter season; however, the occurrence of 44 cases of pneumonia requiring hospitalization clustered in space and time should be handled prudently. Wuhan city, with a population of 19 million, is the capital city of Hubei province, with a population of 58 million people. WHO has requested further information on the laboratory tests performed and the differential diagnoses considered.

**WHO advice**

Based on information provided by national authorities, WHO’s recommendations on public health measures and surveillance of influenza and severe acute respiratory infections still apply. WHO does not recommend any specific measures for travellers. In case of symptoms suggestive of respiratory illness either during or after travel, travellers are encouraged to seek medical attention and share travel history with their healthcare provider. WHO advises against the application of any travel or trade restrictions on China based on the current information available on this event.

**Comment**

According to the BBC today ([https://www.bbc.com/news/world-asia-china-51000910](https://www.bbc.com/news/world-asia-china-51000910)) there are now 59 cases and 163 contacts are being followed up. Today, South China Morning Post (based in Hong Kong) reports that 21 people with a relevant travel history to affected areas of China have been hospitalized in Hong Kong of which 7 have been discharged again ([https://www.scmp.com/news/hong-kong/health-environment/article/3044723/six-more-hong-kong-patients-hospitalised-over](https://www.scmp.com/news/hong-kong/health-environment/article/3044723/six-more-hong-kong-patients-hospitalised-over)).


A “novel coronavirus was genetically sequenced from a sample from 1 patient and subsequently found in some of the others affected in the city of Wuhan, according to people familiar with the findings. Chinese authorities haven’t concluded that the strain is the underlying cause of sickness in all the patients who have been isolated in Wuhan since the infection 1st broke out in early December [2019]….”

Some coronavirus (i.e. SARS- and MERS-Cov) have caused deadly outbreaks, lending urgency to efforts to contain the current situation. As soon as the new virus sequence will be made available new molecular test can be designed. In the past serology presented difficulties due to cross reactivity with the antibodies elicited by other coronavirus. Well established laboratory tests are available for differential diagnosis of other respiratory virus infection. Further News from Chinese authorities is urgently needed.

Antonino Di Caro, Nicola Petrosillo & Eskild Petersen
ESCMID Emerging Infection Task Force, EITaF