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Annex 1

## **Surveillance programme for pneumonia cases of new coronavirus infection**

**(2nd Edition)**

Since December 2019, new cases of coronavirus infection have been detected in Wuhan, Hubei Province. To guide the timely detection and reporting of the new coronavirus infection of pneumonia cases, to prevent the spread of the epidemic, the formulation of this program. The monitoring work in Wuhan City, Hubei Province, is carried out by reference, and the specific plan is formulated separately by the local government.

First, the purpose

(i) Timely detection and reporting of cases of pneumonia and cluster cases of new coronavirus infection;

(2) To master the characteristics of the national outbreak of new coronavirus infection, and timely study and determine the development trend of the outbreak.

Second, the case definition

(i) Suspected cases. Patients with three clinical manifestations

and any epidemiological history:

1. Clinical performance:

- (1) fever;
- (2) has the imaging characteristics of pneumonia;
- (3) The total number of white blood cells in the early stages of the disease is normal or decreased, or lymphocytes count decreased.

2. Epidemiological history:

(1) A history of travel or residence in Wuhan within 14 days of onset of the disease;

(2) patients who had been exposed to fever with respiratory symptoms from Wuhan within 14 days of the onset of the disease;

(3) There is a clustered incidence or is epidemiologically associated with the confirmed case.

(ii) Confirmed cases. Suspected cases have one of the following pathogenic evidence:

1. Real-time fluorescence RT-PCR tests for new coronavirus nucleic acid in respiratory or blood samples;

2. Viral gene sequencing is of the same origin as the known new coronavirus.

(iii) Cluster cases. Suspected cluster cases are 1 confirmed

case found within 14 days in a small range (e.g., a family, a construction site, a unit, etc.) and 1 or more cases of febrile respiratory infection sittined.

In the above cases, 2 cases and above confirmed cases were found, and the possibility of human-to-human transmission due to close contact or infection due to joint exposure may be determined to be cluster cases.

Third, the content of the work

(i) Case detection and reporting. When all types of medical institutions at all levels find patients who meet the definition of suspected and confirmed cases, they should report directly online within 2 hours. The CDC shall investigate and verify the report immediately upon receipt of the report and complete the three-level confirmation audit of the report information via the network within 2 hours. Medical institutions that do not have the conditions for direct reporting on the network shall immediately report to the local county (district) level disease control institutions, and within 2 hours will fill out the completed infectious disease report card sent;

Through close contact medical observation, or in the process of determining concentrated cases, or through other means found cases of fever respiratory infection, after sampling and testing, such as the new coronavirus positive, the local county (district) level CDC should immediately in accordance with the confirmed cases of

direct reporting.

Network direct lying disease option "new coronavirus infection pneumonia", in the "diagnostic type" in line with the suspected case criteria reported by "suspected cases", after the case is confirmed, the case reporting unit should promptly revise the case to "confirmed cases."

Suspected and confirmed cases are classified according to the "New Coronary Viral Infection Pneumonia Treatment Program (Trial 2nd Edition)" report on clinical severity, and "non-pneumonia cases", "light pneumonia cases", "severe pneumonia cases" and "critical pneumonia cases" are selected in the new "Clinical Severity" of the infectious disease report card.

Once the cluster cases (including suspected cluster cases) have been confirmed, the CDC should report directly online within 2 hours through the Public Health Emergency Reporting Management Information System, and the event level can be selected "ungraded". After the health department has graded the event based on the results of the risk assessment, the level of the incident can be adjusted accordingly. And the relevant initial, progress and closing reports in a timely manner to the network direct report.

(ii) Epidemiological investigation.

After receiving a report of pneumonia cases of the new coronavirus infection, the county (district)-level disease control

agency should complete the case investigation within 24 hours and register close contacts in a timely manner. See the Epidemiological Investigation Programme for Pneumonia Cases of New Coronary Virus Infection (2nd Edition) and the Programme for the Management of Suspected Exposers and Close Contacts of Pneumonia with New Coronary Virus Infections (2nd Edition).

After the county (district) level disease prevention and control institutions complete the case investigation or the cluster epidemic thematic investigation, the case questionnaire or the special investigation report shall be reported in a timely manner through the network reporting system, the specific reporting method and the web site shall be notified.

County (district) level disease control institutions should promptly report the epidemiological investigation and analysis report to the health administrative departments at the corresponding level and higher-level disease control institutions.

(iii) Specimens collection and laboratory testing.

Medical institutions that treat suspected cases shall collect relevant clinical specimens of cases and notify county (district)-level disease control institutions to send the specimens to local designated disease control institutions or medical institutions for relevant pathogen screening and testing as soon as possible.

Clinical specimens collected include patient upper respiratory

tract specimens (e.g. pharynx swabs, nasal swabs, etc.), lower respiratory tract specimens (e.g. deep cough sputum, respiratory absorbents, bronchial irrigation fluids, alveoli irrigation fluids, etc.), anticoagulant and serum samples, etc. Clinical specimens should try to collect respiratory samples (especially lower respiratory tract samples) early onset of the disease and acute period serum within 7 days of onset, as well as recovery period serum at 3 to 4 weeks after onset.

Specific requirements for clinical specimen collection and laboratory testing can be found in the Technical Guide to Laboratory Testing of Pneumonia for New Coronavirus Infections (2nd Edition).

Specimen collection, transportation, storage and testing are temporarily managed according to the second class of highly pathogenic microorganisms, in accordance with the Regulations on Biological Safety Management of Pathogenic Microbial Laboratories, and the species or samples of highly pathogenic microorganisms (poisons) that can infect humans Regulations on Transport Management (Order of the Ministry of Health No. 45) and other relevant requirements shall be implemented.

(4) The requirements of the case diagnosis process.

The first case of pneumonia confirmed in accordance with the

definition of a new coronavirus infection found in each province (autonomous region or municipality directly under the Central Government) shall be evaluated and confirmed by the diagnostic team under the Outbreak Response And Treatment Leading Group of the National Health And Health Commission, after the original specimen or PCR enlargement is sent to the third-party testing institution designated by the CDC or the National Health And Health Commission for review and confirmation. For other cases after the first case samples are confirmed in each province, the confirmation process is determined by the provinces themselves.

When sending specimens on the provincial CDC, samples should be submitted at the same time (see "New Coronary Virus Infection of pneumonia laboratory testing technical guide (2nd edition)).