

# Addition of novel coronavirus (2019-nCoV) to the list of notifiable diseases: discussion document

January 2020

## Summary

HSE HPSC recommend that the newly identified novel coronavirus (2019-nCoV) should be added to the list of notifiable diseases with immediate effect for the following reasons

1. The novel coronavirus (2019-nCoV) is a new and emerging threat to public health and has already caused thousands of cases of serious illness and increasing number of deaths. It is causing serious human and economic costs within the area (Wuhan and Hubei Province, China) currently affected. There is increasing evidence of cases occurring outside of the China.
2. 2019-nCoV is zoonotic disease, but the animal source has not yet been identified. Human-to-human transmission can occur through droplets or contact. Human-to-human transmission may occur and health care workers have been affected due to breaches in IPC practices). There has been documented escalation of transmission in some hospital setting in China.
3. Should cases be identified in Ireland there is likely to be significant impact on acute and public health services in order to treat, contain and prevent spread of the disease in the community and to health care workers.
4. Immediate notification of possible and laboratory confirmed cases (meeting case definition) is needed to trigger a thorough investigation and implement control measures.
5. There is no specific treatment or vaccines for the nCoV, however ongoing R&D efforts for other novel coronaviruses are being applied to the 2019- nCoV.

### **Rationale for making 2019-nCoV specified on the list of notifiable diseases**

6. Under existing Infectious Disease legislation (Infectious Diseases (Amendment) (No. 3) regulations 2003) clusters of unusual diseases are notifiable; “unusual cluster or changing pattern of illness” means an aggregation of health events, grouped together in time or space, that is believed or perceived to be greater than could be expected by chance”
  1. Under this legislation a “medical practitioner, as soon as he or she becomes aware or suspects that a person on whom he or she is in professional attendance is suffering from or is the carrier of an infectious disease, and a clinical director of a diagnostic laboratory as soon as an infectious disease is identified in that laboratory, shall – (a) forthwith transmit a written or electronic notification to a medical officer of health” and further in the case of specified diseases “where he or she is of the opinion that there is a serious outbreak of infectious disease in a locality, give immediate preliminary notification to a medical officer of health”.
  2. By including 2019-nCoV on the scheduled list of notifiable diseases this will further support and improve national infectious disease surveillance. Once listed on the schedule of listed diseases, those cases meeting the case definition can be specified on the Computerised Infectious Disease Reporting (CIDR) System and case based data entered on CIDR, similar to what is in place for other notifiable diseases.

## Background

On 31 December 2019, WHO was alerted to several cases of pneumonia in Wuhan City, Hubei Province of China. The virus is a novel coronavirus, which is a family of viruses that include the common cold, and viruses such as SARS and MERS. This new virus was temporarily named “2019-nCoV.”

Initial cases were linked to Wuhan's Huanan Seafood Wholesale Market (a wholesale fish and live animal market selling different animal species). This market was closed to the public on 1 January 2020. Chinese authorities report that samples from the market tested positive for the novel coronavirus.

Cases showed symptoms such as fever, dry cough, dyspnoea, and radiological findings of bilateral lung infiltrates. Provisional data indicates that the likely incubation period for the infection with 2019-nCoV is from 2 to 12 days with an average of 7 days.

Sequence analysis showed that the newly identified virus is related to the SARS-CoV clade.

Human-to-human transmission is occurring and a preliminary R0 estimate of 1.4-2.5 was presented at the Emergency meeting convened by WHO. Amplification (increased transmission) has occurred in one health care facility.

The source is still unknown (most likely an animal reservoir) and the extent of human-to-human transmission is still not clear.

On 21 January WHO requested that all countries report probable and confirmed cases of novel coronavirus infection **within 24 hours** of identification, by providing the minimum data set outlined in the *“Interim case reporting form for 2019 Novel Coronavirus of confirmed and probable cases”*, through the National Focal Point and the Regional Contact Point for International Health Regulations at the appropriate WHO regional office.

## Description of the pathogen

Coronaviruses are a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS).

Coronaviruses are zoonotic, meaning they are transmitted between animals and people.

This novel coronavirus (CoV) is a new strain of coronavirus that has not been previously identified in humans. Sequence analysis showed that the newly identified virus is related to the SARS-CoV clade.

## Diagnosis

### A: Clinical diagnosis

Patients present with fever, dry cough, dyspnoea, and radiological findings of bilateral lung infiltrates. To date, most cases either have a history of travel from Wuhan City, Hubei Province of China or contact with individuals who have been in Wuhan and had respiratory illness.

## **B: Laboratory diagnosis**

On 10 January 2020, the novel coronavirus genome sequence was made publicly available by Chinese Authorities. The sequence was deposited on the GenBank database (accession number MN908947) and was uploaded to the Global Initiative on Sharing all Influenza Data (GISAID). Preliminary analysis showed that 2019-nCoV clusters with the SARS-related coronavirus clade and differs from the core genome of known bat CoV.

A number of assays have already been developed to detect the novel coronaviruses from respiratory samples.

WHO has issued guidance for laboratories wishing to test for coronavirus using an assay that already has some degree of validation. Testing will be done using commercially prepared oligonucleotide primers, probes and controls and paired with appropriate enzymes for reverse transcription real-time PCR. A number of laboratories which have developed protocols are willing to send reagents or reagent mixes prepared in their laboratories to other laboratories. The National Virus Reference Laboratory plans to test samples originating in Ireland.

## **C: Other investigations**

Testing by immunoassays is not currently available.

## **Estimated incidence (WHO situational report 27/1/2020)**

- Globally 2798 confirmed cases
- China 2741 confirmed cases
- 5794 suspected cases
- 461 severe
- 80 deaths

Outside of China

37 confirmed 11 countries

WHO RISK ASSESSMENT of onward spread

- China very High
- Regional Level High
- Global Level High

## **Estimated incidence in Ireland**

No cases have been identified to date although a number of possible cases are under investigation

## **Public Health Impact**

### **Impact on population health and health service**

As this is a new coronavirus, and it has been previously shown that similar coronaviruses required substantial efforts for regular information sharing and research. WHO requires that the global community demonstrate solidarity and cooperation, in compliance with Article 44 of the IHR (2005), in supporting each other on the identification of the source of this new virus, its full potential for human-to-human transmission, preparedness for potential importation of cases, and research for developing necessary treatment.

On the basis of the information currently available, HPSC (based on assessment from ECDC) considers that:

- the potential impact of 2019-nCoV outbreaks is high;
- further global spread is likely;
- there is currently a moderate likelihood of infection for EU/EEA citizens residing in or visiting Wuhan, Hubei province, China;
- there is a high likelihood of further case importation into countries with the greatest volume of people who have travelled from Wuhan, Hubei Province (i.e. countries in Asia);
- there is a moderate likelihood of further case importation into Ireland and EU/EEA countries;
- adherence to appropriate infection prevention and control practices, particularly in healthcare settings in EU/EEA countries with direct links to Hubei, means that the likelihood of a case detected in the EU resulting in secondary cases within the EU/EEA is low;
- the impact of the late detection of an imported case in Ireland without the application of appropriate infection prevention and control measures would be high, therefore in such a scenario the risk of secondary transmission in the community setting is estimated to be very high.

The potential impact on population health and health services, if cases occur in Ireland is high. The focus early on will be on identification and investigation of suspect cases, contact tracing and management of close contacts and communication and guidance to public, health sector.

### Public Health response

In compliance with Article 44 of the IHR (2005) Ireland is required to report probable and confirmed cases of novel coronavirus infection **within 24 hours** of identification, by providing the minimum data set outlined in the *“Interim case reporting form for 2019 Novel Coronavirus of confirmed and probable cases”*, through the National Focal Point and the Regional Contact Point for International Health Regulations at the appropriate WHO regional office.

Therefore it is necessary that all medical and laboratory directors should be required to notify novel coronavirus (2019-nCoV) and that this new virus should be listed under the schedule of notifiable diseases.

## Suggested case definition (as per WHO provisional and subject to change)

The case definitions are based on the current information available and may be revised as new information accumulates. This case definition is based on most recent WHO case definition

### Suspect case

A. Patients with severe acute respiratory infection (fever, cough, and requiring admission to hospital), **AND** with no other aetiology that fully explains the clinical presentation

**AND** at least one of the following:

- a history of travel to or residence in the city of Wuhan, Hubei Province, China in the 14 days prior to symptom onset, **or**
- patient is a health care worker who has been working in an environment where severe acute respiratory infections of unknown aetiology are being cared for.

B. Patients with any acute respiratory illness **AND** at least one of the following:

- close contact with a confirmed or probable case of 2019-nCoV in the 14 days prior to illness onset, **or**
- visiting or working in a live animal market in Wuhan, Hubei Province, China in the 14 days prior to symptom onset, **or**
- worked or attended a health care facility in the 14 days prior to onset of symptoms where patients with hospital-associated 2019-nCoV infections have been reported.

### Probable case

Probable case: A suspect case for whom testing for 2019nCoV is inconclusive or for whom testing was positive on a pan-coronavirus assay.

### Confirmed case

A person with laboratory confirmation of 2019-nCoV infection, irrespective of clinical signs and symptoms.

## Combined clinical and laboratory-based notification

Clinicians would be required to notify all suspected cases of Novel Coronavirus 2019, and laboratories to notify all Novel Coronavirus 2019a s per case definition

## References

1. [Statement on the meeting of the International Health Regulations \(2005\) Emergency Committee regarding the outbreak of novel coronavirus \(2019-nCoV\)](#)
2. [Global Surveillance for human infection with novel coronavirus \(2019-nCoV\)](#)
3. [Laboratory testing for 2019 novel coronavirus \(2019-nCoV\) in suspected human cases](#)