



# The coronavirus epidemic will reach Norway

---

LEDER

PREBEN AAVITSLAND

E-mail: [preben@epidemi.no](mailto:preben@epidemi.no)

Preben Aavitsland, senior consultant at the Norwegian Institute of Public Health and district medical officer in the municipalities of Arendal and Froland.

The author has completed the ICMJE form and declares no conflicts of interest.

---

Doctors have a key role to play in limiting the adverse effects of the newly discovered virus originating in China.

Just before the New Year, the health authorities in Wuhan, China, discovered a cluster of patients with pneumonia and a link to a market where live animals are sold and slaughtered. On 7 January, the authorities reported that a newly discovered coronavirus was the cause of the outbreak. The virus genome was rapidly sequenced (1), and a polymerase chain reaction test (PCR test) was developed. The newly discovered coronavirus, provisionally named 2019-nCoV, is related to SARS-CoV, which in 2002/03 caused an epidemic that spread from China to several countries, resulting in around 8000 cases and 800 deaths.

It is happening again: a virus from animals – probably bats (2) – has jumped to humans and triggered an epidemic. To date, around 7000 cases of the 2019-nCoV infection and 100 deaths have been confirmed, mainly in Wuhan, and these figures are growing rapidly. Cases among travellers from Wuhan have been identified in some twenty countries, including Germany and France, but sustained proliferation is currently only certain in China. The likelihood of individual cases coming to Norway is quite low at present, but will increase with time, and will rise significantly as the epidemic gradually spreads in countries with more contact with Norway, such as Thailand.

The Chinese health authorities and researchers have been quick to share knowledge about the situation (1, 3), but much remains uncertain. The disease usually appears to start with a fever, cough and myalgia after an incubation period of 4–8 days (4). The clinical picture appears to vary from almost asymptomatic infection via pneumonia to acute respiratory distress syndrome and death, with the elderly and the chronically ill being more at risk of serious illness (3). As with all new diseases, it is the most serious cases that are reported and tested first. The observed case fatality is slowly approaching 1%, and will probably drop even further as it becomes clear that the number of mild cases is higher than reported.

It is thought that the disease is primarily transmitted via respiratory droplets (1) and indirectly via hands and objects. The potential for the disease spreading depends on the degree and duration of infectiousness in patients and the frequency of contact between the

infected and uninfected. The speed and extent to which the epidemic spreads are thus determined both by biological characteristics of the virus and its interaction with the body's defence system, as well as social conditions, such as population density and contact patterns in the population. Overall, the disease appears to have a slightly higher spread potential and case fatality than influenza. Thus, we can probably expect the burden of disease to be somewhat greater than during the annual influenza epidemics.

The most important measure is to identify possible cases early, test them and isolate them at home or in a hospital

For the time being, the goal of Norway's infection control authority is to delay the outbreak of the epidemic and then limit it, but without the measures unreasonably affecting individuals and society (4). Without a vaccine and medication to restrict the contagion, we must rely on infection control measures that can reduce the contact frequency and infectiousness. If the virus is commonly transmitted from patients in the incubation period or from patients with only mild symptoms, these measures will become less effective (5).

The most important measure is to identify possible cases early, test them and isolate them at home or in a hospital. In the health service, personal protection measures are being taken to combat droplet contamination, and enhanced measures are being implemented during aerosol-generating procedures. Persons who have been in an epidemic area, and those in close contact with people with confirmed cases of infection are being urged to look out for symptoms appearing, and if they do, to isolate themselves and call their GP or the emergency clinic.

Doctors in Norway have a key role to play in both of these measures, i.e. early detection and isolation of those who are infected, and monitoring the symptoms of potential cases. Doctors need to be vigilant in respect of patients who experience symptoms in the first couple of weeks after being in an epidemic area. Doctors can find advice and updates on the situation on the Norwegian Institute of Public Health's website (<https://fhi.no/sv/smittsomme-sykdommer/corona/>).

The general population can help by practising good hand hygiene. Measures to reduce the contact frequency in the population require considerable resources and their effectiveness is not known. They are not, therefore, part of the strategy in Norway. The recommended advice is not to close down schools, workplaces, public transport or other places where people gather.

We must be prepared for this epidemic spreading throughout the world. It will be a pandemic, which even Norway will not escape. By implementing the above measures, we can buy some time to generate more knowledge about the disease and prepare the hospitals for the treatment of the most severe cases. The measures can delay the epidemic until after the flu season and flatten out the epidemic curve, which will enable the burden on the health service to be distributed over a longer period. Hospitals should now start to prepare for receiving patients with a severe clinical picture.

---

#### REFERENCES:

1. Zhu N, Zhang D, Wang W et al. A novel Coronavirus from patients with pneumonia in China, 2019. *N Engl J Med* 2020; 382: NEJMoa2001017. [PubMed][CrossRef]
2. Gralinski LE, Menachery VD. Return of the Coronavirus: 2019-nCoV. *Viruses* 2020; 12: 135. [PubMed][CrossRef]
3. Huang C, Wang Y, Li X et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet* 2020; 305: S0140-6736(20)30183-5. [PubMed][CrossRef]
4. Folkehelseinstituttet. Risikovurdering av og respons på 2019-nCoV-infeksjon i Norge. Oslo: Folkehelseinstituttet, 2020.

5. Fraser C, Riley S, Anderson RM et al. Factors that make an infectious disease outbreak controllable. Proc Natl Acad Sci U S A 2004; 101: 6146–51. [PubMed][CrossRef]

---

Published: 5 February 2020. Tidsskr Nor Legeforen. DOI: 10.4045/tidsskr.20.0077

© The Journal of the Norwegian Medical Association 2020. Downloaded from tidsskriftet.no