

Judging the gravity of the coronavirus outbreak

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How serious is the coronavirus outbreak? What are its symptoms and how contagious is it? Experts studying the new virus, still have key questions to answer before they can assess its danger.

The toll so far

As of Saturday, 1,300 cases have been confirmed in China, its country of origin, of which 41 have been fatal. Several cases have been detected in Asian countries, as well as a few in Australia, France and the United States.

So far, no-one outside China has died.

"It is hard to understand the mortality rate associated with this [new virus](#) currently, as we are only detecting severe cases in the initial stages of the epidemic, rather than the milder or asymptomatic cases," Chinese scientist Lili Ren wrote in The Lancet.

In other words, we know how many people have died from the virus, but not the true numbers infected.

2019-nCoV, as it has been named, is part of the coronavirus virus family, the source of two previous fatal epidemics.

The 2002/03 SARS outbreak (Severe Acute Respiratory Syndrome)

started in Beijing and killed 774 people out of a total 8,096 infected.

The 2012 MERS outbreak (Middle East respiratory syndrome) killed 858 people out of the 2,494 infected.

So those outbreaks had significantly different mortality rates of 9.5 percent and 34.5 percent respectively.

In general however, those hit by the new virus "are in a less serious condition than with SARS", said Yazdan Yazdanpanah, head of infectious diseases at Paris Diderot University, on Saturday.

"For the moment, the mortality rate is less than five percent, he added.

Symptoms

Chinese scientists reported in The Lancet Friday that, based on a study of 41 early-detected cases, some of the new virus's symptoms resemble those of SARS.

All patients had pneumonia, most had a fever, three-quarters of them were coughing and more than half had trouble breathing.

Despite this, lead author Bin Lao added: "there are some important differences", such as no runny noses, sneezing or sore throats. Nor did the new virus cause stomach problems such as diarrhoea, which hit 20-25 percent of SARS patients.

The average age of the 41 patients studied was 49, most of them having visited Wuhan market, identified as the source of the outbreak. Nearly a third of them had serious breathing difficulties and six of them died.

All this gives us a preliminary sketch of the new virus, even if one has to

be cautious about drawing conclusions based on such a small sample.

The study is all the more important because a current epidemic of flu, which has similar symptoms, has made isolating patients of the new virus difficult.

Contagion

It is still not clear how contagious it is.

"The problem is that we still do not have enough data to accurately specify" the virus's basic reproduction number—or level of infectiousness, says William Keevil of the University of Southampton in England.

But research still going through the peer review research process suggested that it might be "quite high" he added.

"So if this is confirmed and the virus were to mutate in future to a more dangerous form, this would be concerning," he said.

The incubation rate for the new virus is thought to be a maximum of two weeks.

Origins

Researchers think the new virus probably came from bats, as the SARS virus did, with which it shares 80 percent of its genetic makeup.

But we still don't know which animal passed it on to humans. On Wednesday, a Chinese team suggested it could be a snake, but that was immediately challenged by other experts, who think a mammal is the

more likely culprit.

Identifying which animal it was could help fight the outbreak.

With SARS, it turned out to be a civet, whose meat is very popular in China.

Banning the consumption of civet and closing their breeding farms helped stop SARS from making a comeback, says Arnaud Fontanet of the Pasteur Institute in Paris.

On the other hand, one reason it was harder to stem the MERS [outbreak](#) is because it came from dromedary camels, a widely used working animal.

Precautions

Health authorities and scientists say the same precautions against other viral illnesses can be used: wash your hands frequently, cover up your coughs, try not to touch your face.

And anyone who does come down with the [virus](#) should be placed in isolation.

"Considering that substantial numbers of patients with SARS and MERS were infected in health-care settings", precautions need to be taken to prevent that happening again, the Chinese team warned in The Lancet.

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