ICU

MANAGEMENT & PRACTICE

INTENSIVE CARE - EMERGENCY MEDICINE - ANAESTHESIOLOGY

VOLUME 20 - ISSUE 2

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Is the Severe COVID-19 Over in Europe?

Is the worst over? Have patients most at risk already been affected and died? Or has the SAR-CoV-2 virus mutated to a less severe form? Where exactly do we stand with COVID-19?

ndoubtedly, the COVID-19 pandemic has been a terrible experience - worse than expected for many worldwide. As we follow the COVID-19 situation, there is a tendency to focus on the many deaths as a way to quantify its severity. However, it is difficult to know exactly how many deaths are really due to COVID-19, and how many may in fact be caused by underlying health conditions, be the result of decisions to limit life-sustaining therapy, or be associated with shortages of essential treatment facilities or resources. Nevertheless, the large excess mortality when the year 2020 is compared to previous years, even years with higher death rates as a result of severe influenza epidemics, is undisputable; in Belgium excess mortality compared to 2019 was close to 30% over the period March to May, but has now returned to usual values.

The measures taken in Europe, including nationwide and local lockdowns, isolation of infected patients and their contacts, and social distancing, were unavoidable and essential to control the spread of the virus. The UK initially, and Sweden more recently, have paid the price of relying on the development of collective herd immunity. We now

know that barely 10% of the population has antibodies to SARS-CoV-2 and are concerned that this natural protection anyway does not seem to last for very long.

The question everyone is asking now is therefore, "how long is the virus going to stay with us?" To answer this, we

when some leaders considered that SARS-CoV-2 infection was just like a bad flu, because this was clearly incorrect

need to see how the disease is evolving. There are three key approaches for this:

1. By evaluating the number of infected cases or the proportion of positive tests from all tests taken. However, the implications of a positive polymerase chain reaction (PCR) test in a healthy individual are unclear. Moreover, increased testing will result in more positive cases being identified, so that comparisons over time are difficult.

- 2. By counting the number of COVIDrelated deaths. However, as discussed earlier this measure is also difficult to interpret. For example, should an elderly person in a residential home who dies with some respiratory symptoms (as is often the case in such individuals), but who was not tested for SARS-CoV-2, be included in the coronavirus mortality statistics or not? Or someone with cardiac problems and a past history of myocardial infarction who dies minutes after hospital admission from cardiogenic shock but who had tested positive for SARS-CoV-2 on arrival - is this a cardiac death or a COVID-19 death?
- 3. By counting the number of hospital admissions, and intensive care unit (ICU) admissions in particular. This is the index I personally have followed most closely (and not only because it is of course also our focus of professional interest): after all, when we first went into lockdown, the main reason evoked in most countries was to avoid overwhelming our ICUs. In Belgium, we have hardly seen any COVID-19 patients in our ICUs for two months now and other European countries have had a similar experience. Indeed, we had a national video conference a couple

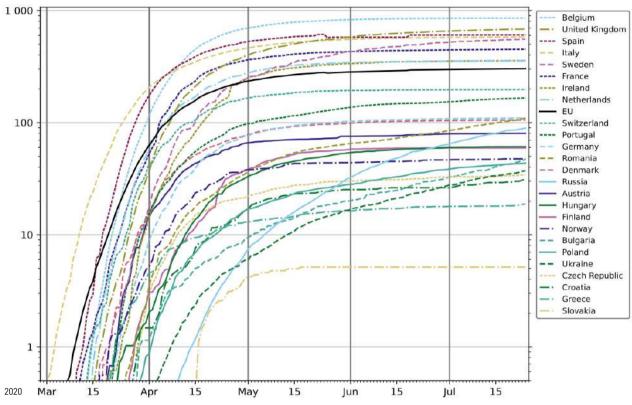


Figure 1. Deaths by COVID-19 in European countries per 1 million inhabitants. Last update: 2020-07-24, Source: ECDC, Eurostat.

of days ago about the progress of our clinical trials for COVID-19 treatments in Belgium and there was a mixture of happiness and relief because of the small number of severe cases in our ICUs and concern that it was now becoming impossible to enroll patients in the various ongoing clinical trials that have not yet included sufficient patients for valid conclusions to be drawn. At the end of the meeting, people were almost "hoping" for a second wave so that we would be able to finish the studies and by so doing help others! Research has also been hindered by the hydroxychloroquine situation, with people declining participation in randomised trials because they preferred to be sure that they received hydroxychloroquine... but that is another story.

Another interesting feature is that although the total number of cases is not declining very much, is in fact increasing a little in many European countries, the number of severe cases remains low. Is this because many of the patients most at risk have already been affected and died? Or has the virus mutated to a less severe form? Or is there some other explanation?

The COVID-19 story is clearly not yet over in Europe, but the number of severe cases and deaths is now low across the continent. At the early stages of this pandemic in Europe, it was frustrating when some leaders considered that SARS-CoV-2 infection was just like a bad flu, because this was clearly incorrect. But, there is some suggestion that this may now be the case.... the worst may be over. So, can we stop preventive measures, celebrate and get back to normal? No, we need to remain prudent, follow the statistics, and try to better understand how the pandemic is evolving while continue

to try and identify effective treatments and develop a vaccine. ■

Key Points

- It is difficult to know exactly how many deaths are really due to COVID-19.
- The UK initially, and Sweden more recently, have paid the price of relying on the development of collective herd immunity.
- Although the total number of cases is not declining very much, is in fact increasing a little in many European countries, the number of severe cases remains low. Why is that?
- It is now becoming impossible to enroll patients in the various ongoing clinical trials that have not yet included sufficient patients for valid conclusions to be drawn.
- Research has also been hindered by the hydroxychloroquine situation, with people declining participation in randomised trials because they preferred to be sure that they received hydroxychloroquine.