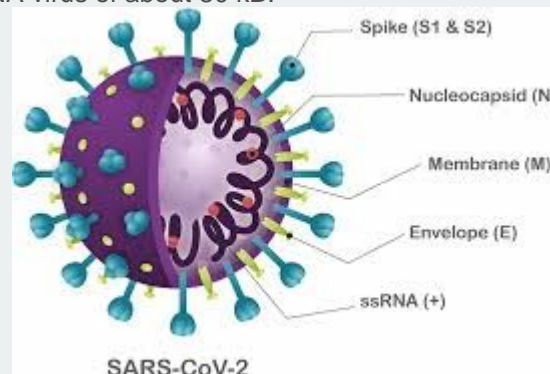


AGENTS INFECTIEUX, RÉSISTANCE ET CHIMIOTHÉRAPIE

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SARS-COV-2

The arrival of a new Coronavirus in France and around the world in 2020 has upset the organization of the country and in particular our health system. The hospital has been reorganized in such a way as to be able to receive and treat patients arriving from all over the region. This virus belongs to the -Coronaviridae family, like SARS-CoV-1 responsible for an epidemic in 2002-2003 and MERS-CoV which circulates in the Middle East. This virus, which first appeared in China at the end of 2019, is a positive-sense single-stranded RNA virus of about 30 kB.



Pathogenesis

It is also responsible for mild or even asymptomatic respiratory infections as well as acute respiratory distress syndromes causing a large number of deaths. There are now well known unfavorable factors of infection such as age, high blood pressure, diabetes, and many other comorbidities. It is responsible for an excess mortality of around 9% in 2020 in France.

Treatment

Although no specific antiviral treatment has shown exceptional antiviral efficacy, many treatments have improved the prognosis of this infection. These treatments are based on moderate antiviral activity, management of the inflammatory syndrome responsible for numerous complications, but also on the improvement of resuscitation procedures. In addition, the fairly rapid arrival of an effective vaccine from 2021 has made it possible to protect fragile patients from serious forms.

Diagnosis

The diagnosis of the infection is based on the detection of the viral genome by real-time quantitative RT-PCR. This tool has largely been democratized and deployed en masse in order to ensure mass screening of the population. Serological diagnosis is more widely used to monitor immunity, especially post-vaccination.

Involvement of the AGIR team

In this context, our team, made up of several members of the University Hospital of Amiens, focused on this theme, both clinically and diagnostically. We quickly applied our knowledge to respond to this health emergency. Our team is at the origin of numerous publications in the fields of clinical research (cardiovascular, pneumology, resuscitation, etc.) as well as at the diagnostic level on the performance of serological tests. In addition, our team participated in the European therapeutic protocol DisCoVeRy, as well as in the drafting of international recommendations for the management of COVID infections.