

## The SAC in times of COVID

### *La SAC en tiempos de COVID*

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In December 2019, after some very traumatic months in Argentina, a new cycle of government was beginning which, as every time it happens, renews some degree of hope.

Those days were somewhat more peaceful, since, although the chaos was not resolved, at least the transition to a new period had occurred.

It was at that time when we began to read in the newspapers that an infection with a new respiratory virus had been reported, in a remote Chinese city called Wuhan. At the beginning of 2020 the news was gaining more presence in the media, but far from attracting much attention in the local public that was beginning its summer break. Public awareness was quickly shaken when the geographical spread was noticed, in China first, multicentric and exponential, then, with a rapid diffusion throughout Europe.

Expressions of denial were still heard here (“it is still far away, summer protects us, our problem is dengue”, among others), when on March 11 the disease was declared a pandemic by the WHO.

In just a few days, the innumerable number of fellow citizens traveling the world caused the virus to land in Argentina in February and, although with cases still imported but with rapid contagion, in related people. This led the Government to order an early general quarantine on March 20, followed by the complete lockdown of borders, since it was observed that the expansion took place in days or weeks, unlike the “Spanish flu” whose global reach took a year or more.

Hundreds of thousands of infected people in the world, thousands of deaths and overwhelmed health systems in unusually fast times constitute a devastating reality that exceeds by far the most prolific of fantasies and the most imaginative fictions on catastrophes.

Following Frank Snowden, –quoted by Guyot in *La Nación*– (1), “We are dealing with living organisms that require certain conditions to prosper and we provide them with those conditions. The epidemic is the result of a civilization that sacrifices the planet in the altar of a deranged consumption that enriches a few, numbs the majority and relegates many to poverty and exclusion.”

In a few days, the whole public health system entered into “unchartered navigation”, (2) taking measures at the same time as field reports appeared, with almost complete absence of experimental data, except for those registered by recent virus-related epidemics

(SARS 2002-2003).

Given the absence of vaccines, immune serums or tested antiviral drugs, a number of measures were adopted, with more or less speed and efficacy, to “flatten the disease diffusion curve”.

Mathematical models were built to estimate the transmission efficiency ( $R_0$ ) whose initial values of 2-3 indicate that a sick person mathematically transmits the virus to another two or three persons, and that after a critical point is reached, leads to an exponential transmission. Obviously,  $R$  varies with time and the adoption of actions, and the prediction from mathematical models reduces confidence intervals as the model is more robust by incorporating more data and cases.

As Bill Gates (3) reflects, the probability of a pandemic similar to that of 1918, “was not a question of whether or not it would occur, but of when it would.” The Covid-19 pandemic seems to have the characteristics of the “century pandemic”, since it presents all the conditions that define it: 1) It kills healthy adults in addition to older and comorbid persons. 2) Case fatality risk (CFR3) of 1% and up to 2.3% recorded in Italy (data that depends on virulence, the time segment analyzed and demographics). 3) Efficient transmission with  $R_0$  greater than unity. 4) It can be transmitted by oligo or asymptomatic subjects (unlike previous SARS).

Faced with this tremendous reality, the Argentine Society of Cardiology took and implemented a series of decisions that led to a complete reconversion in just a few days.

All academic activity, including face-to-face courses of up to 120 people, was transferred to digital format without interrupting classes. They were transformed into videoconferences, using all the platforms that had been previously prepared without even imagining the situation that would make them essential. The internal administrative on-site activity was also closed and transformed into home office. The internal and external meetings were held using different and innovative digital solutions that required an almost continuous virtual presence, every day, without distinction of times or holidays.

Reality also required the suspension of international medical meetings, adapting joint communications and projects to urgent changes whose final course is still uncertain. All face-to-face scientific activities in the regional districts were suspended and

rescheduled at least until springtime. The Imaging Congress was reprogrammed to do it together with the Argentine Congress, which, in turn, was moved to November 19 - 21, both scientific committees showing great flexibility and efficiency.

Obviously, all representations and delegations were suspended and the trips canceled; the last activity done in person was the opening meeting of researchers belonging to the INTERASPIRE international registry from the World Heart Federation.

In these and many other adaptive changes, plasticity, speed of response, creativity, commitment, and solidarity with the Institution could be appreciated, both from stable staff and doctors, and with or without Society positions. But even more important than the operational changes was the leadership position adopted by the Society in this serious health and social problem, specifically addressing the cardiovascular issue.

A series of disclosure and position taking webinars were organized on the topics that were considered most important and urgent, such as the organization of services, personal protection measures and the adaptation of treatment for the most common cardiovascular conditions. Similarly, the care of the cardiac patient without-Covid, whose mortality is increasing due to lack of proper care, was addressed. Focus was also placed on the problem of drug interaction (with the virus and with antiviral treatments), the rational management of diagnostic technologies (traditional and new) and the diagnosis and treatment of patients with Covid-19. The call to participate by this method with heads of coronary units was surprising: 2,300 registered in the first meeting; the future programming will be frequent and varied.

Work and study groups were organized seeking to produce position papers on different topics and, in some cases, to propose regulatory and implementation systems, specifically in the field of telemedicine.

On the other hand, a "Crisis Committee" was created to produce and select the information to be organized by the Editorial Committee formed by the Instructional Resources Area (ARI) and the Board of Directors, to be later disclosed through webpages or the media.

I want to highlight and thank the extraordinary quantity and quality of the action displayed.

At the public health policy level, the SAC takes part in various collaborative tasks, as for example,

in the elaboration of regulations, consultation spaces and informative webinars with the Ministry of Health of the Nation and the Autonomous City of Buenos Aires.

In the field of research, a national registry of Covid and cardiovascular disease has been started, together with the Argentine Federation of Cardiology, in order to represent the cardiological repercussion of the pandemic throughout the country. With this registry we hope to shed some light on our reality without neglecting participation in international registries.

Needless to say, that in the midst of this critical situation with no previous or even similar experiences, the management of the Society's economy occupies a major place in the mind and time of those of us who have the honor of directing it.

I agree with Bill Gates (2) when he says: "The responsibility of the leaders is to solve the immediate problem, but also to prevent it from happening again."

Immediate action is needed for the control of the disease, but also simultaneously, for the prompt development of antivirals and vaccines (there are several international studies in progress) and massive and supportive investment.

The Argentine Cardiology Society, coincidentally celebrating its 83rd anniversary, assumes in all its dimension the enormous challenge of maintaining and even increasing its leadership in moments of such threat, where fear tends to hinder and paralyze action.

This is a time of deep crisis, but it is also an opportunity, perhaps unique, to reinvent and renew ourselves. It is time to put aside selfishness; teamwork, compelling and supportive, is what fuels our faith in the future.

The best is yet to come!

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3. Gates, B. Responding to Covid-19 - A Once-in-a-Century Pandemic? *N Engl J Med*. 2020 Feb 28. <https://www.nejm.org/doi/10.1056/NEJMp2003762>