

COVID-19: The importance of scientific research

COVID-19: A importância da pesquisa científica

COVID-19: La importancia de la investigación científica

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Since December 2019, all nations have been experiencing, to a greater or lesser extent, impacts from the COVID-19 pandemic. The epidemic and geometric growth in the number of cases of pneumonia caused by a new virus that began to infect humans in Wuhan in China has caused concern to the World Health Organization and Chinese health authorities.¹ This infection quickly spread to China itself and to other countries, and on January 30, 2020, COVID-19 was declared a public health emergency of international importance.²

COVID-19 presents itself within a complex network of aspects, related to the structures of health systems, connected to the basic supplies and inputs to life, the economy, the reality of hunger, misery, helplessness, social abandonment, the invisibility of street populations, refugees and many other situations of social vulnerability. Insecurity, anguish and fears in the face of the pandemic, arise with the possibility of contagion / infection and death caused by the “invisible enemy”, the new coronavirus.³

The pandemic continues at a rapid pace, so quickly that there has not yet been time to understand several aspects and very little is known about COVID-19. The infection that the virus causes is still not completely elucidated, although we have already identified it as a flu-like syndrome with a risk of seriousness and death⁴⁻⁵ and we already recognize its airborne transmission by droplets⁵, many points are still unclear. How can the evolution of the disease get worse in one group and another not? Will exclusively those with comorbidities have severe forms? Is respiratory involvement the worst part of the clinical picture? Or are coagulopathy and multiple organ failure more worrying?

Is the immune response of those who have contracted the virus really protective? Is there a possibility of cardiac, neurological or even organic sequelae after discharge⁶? And the social and economic impacts? Is it really possible to measure them or do we need to wait and watch what can happen? These questions, and many other questions that we cannot even list here, will only be answered by scientific research, from the most varied areas of knowledge.

Countries are still measuring how big this epidemiological and global challenge can be. Brazil received its first imported case on February 21, 2020⁷ and so far we have few Brazilian studies. It is known that in the midst of the unknown, several types of studies and different approaches are needed to try to understand and face the different aspects of this pandemic.⁸

Research and understanding on several fronts of this disease are part of the response to the pandemic situation.⁸ Although there are no approved vaccines for human coronaviruses⁹ nor effective and standardized treatment against COVID-19², there is a scientific race. In other words, a series of studies that has been conducted since the beginning of the outbreak, in an attempt to elucidate the epidemiology, causes, clinical manifestations, diagnostic methods, treatment, prevention and control in order to minimize the impact of the pandemic.³ Will the Is Brazil in this race too? Do our researchers have the structure, resources and funding for these important discoveries?

The Higher Education Institutions (HEIs) that train their students within a teaching perspective based on the triad “teaching, research and extension”, have never been so important to what afflicts us at this moment, as they inherently corroborate the incessant search for the knowledge.¹⁰

The approach to respond to the pandemic situation of COVID-19 should include clarifying not only the number of cases and transmissibility, but also the impact of the epidemic with regard to the overall picture it reaches. It is through scientific research that the factors associated with infection can be revealed, from factors linked to prevention to those related to the government's response to the pandemic.⁸

An adequate response is based on the appropriation of knowledge based on evidence produced by researchers. As an example, the adherence to the “classic forms” of prevention, of great importance for public health, related to the hygiene habits of the population that still finds barriers to be implemented. Therefore, permeating this whole scenario, the difficulty encountered by health authorities and professionals at the forefront is also about educating the population to follow the recommendations of official health agencies, increasing contagion.¹¹

In addition, the dissemination of false news, mainly on social networks with content that throw a certain disagreement over the population in relation to what the world is experiencing due to misinformation. In the meantime, everyone involved in the educational and research process must join forces to think and reflect on strategies that are adaptable to each reality so that the impacts of this crisis are at least mitigated.¹¹⁻¹⁴

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