SARS-COV-2: THE FIRST WAVE OF DISEASE OUTBREAK AND ITS BARRIERS TO CHRONIC DISEASES MANAGEMENT

SARS-CoV-2: a primeira onda de contaminação e suas barreiras para o manejo das doenças crônicas

The reality of the world changes with the new coronavirus.¹ Until March 2020, the virus had spread to 203 countries and the pandemic status was officially declared by the World Health Organization (WHO).² In a short period, social distancing became mandatory so that the speed of spread of the virus was minimized both to protect the entire population — especially the most vulnerable — and to avoid overload and the consequent collapse of health systems.³ Intending to flatten the curve of infections and hospitalizations due to COVID-19, the almost consensual speech for isolation and social distancing, despite being conflicting between the municipal, state, and federal spheres in Brazil, reverberated as the most potent prevention strategy during the pandemic, and that's how the world responded. Protective measures have been instituted, especially aimed at the group with the highest risk, older people with chronic diseases, but this relevant intervention has its potential deleterious effects. The reduction in the frequency of physical activities is an example of what was already foreseen; the increase in domestic violence, an example of the unexpected. Among these potential unintended damages, impacts on mental health, and barriers to following-up and managing chronic diseases have become two of the biggest problems for geriatricians and gerontology specialists.⁴

Advanced age, chronic diseases, and immunodeficiency are among the most important risk factors for death related to the disease mediated by the new coronavirus, COVID-19.⁴ Impactfully, all of these factors usually coexist in the same individual, which is why about 70 % of deaths occur among the older population.⁵ Brazil, at the date of writing of this document, has the second-highest number of positive cases and deaths from COVID-19, with approximately 70% of the cases lethal among people over the age of 60 years.⁶ These statistics on the new disease imply even more complexity and difficulties to the already deficient Brazilian health system, including the overload of the hospital system as a significant barrier to the adequate management of chronic noncommunicable diseases (NCDs).⁷ The last item is a top priority, as pointed out by the WHO, which in 2013 published a global action plan to prevent and control NCDs, as they are the cause of 36 million annual deaths worldwide and the impact of these conditions is expected to increase secondarily to population aging.⁸

It is the older population that concentrates a large part of the prevalence of these diseases, being, therefore, doubly vulnerable: for the viral disease itself and its potential impact on access to preventive measures and control of clinical and mental health morbidities. There are several potential mediators for failure to care for patients, starting for reasons of contingency in the health system related to the pandemic, home isolation, or simply fear of contamination when seeking assistance. Furthermore, there is an economic recession, a reduction in means of transport, and even greater social impacts. Three direct results can be seen. The closure of basic health units due to the reallocation of human resources and the structure to exclusively serve COVID-19; the restriction of outpatient care to cases with a high risk of clinical instability; retraction in the number of consultations, suspension, or postponement of treatments and elective procedures. For these reasons, there is a real fear of the consequences of neglecting the management of chronic diseases during the pandemic, especially the higher mortality from NCDs and the increased impact of these on physical and mental health and the quality of life of the older population.

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With this, a new phase is to come: the progression of preventable diseases and the death of chronic patients whose care was interrupted by the crisis of the new coronavirus, here called the late wave of deaths. In the hospital scenario, the sudden emptying of non-COVID-19 hospitalizations is noticeable in the last two months. Out of fear of contagion, many patients postponed emergency visits. Editorials of scientific journals already point to a 48% reduction in hospitalizations for cardiovascular diseases in the United States of America (USA).⁶ Also, there was an 800% increase in deaths from heart attacks at home in New York City, USA.² Perhaps, many of these cases could have been treated promptly if treated early in a hospital.

Therefore, we will soon face an exponential wave of complications related to chronic diseases that were not controlled and untreated conditions during the pandemic. A greater worsening of pre-existing cardiac and pulmonary diseases is estimated; the advancement of neoplastic diseases that had their diagnosis or treatment postponed; the incidence of acute events due to worse control of arterial hypertension and diabetes mellitus, for example. The late wave will carry patients with chronic diseases who have waited patiently for the rescheduling of their appointments and procedures. It will also include those with mental illnesses or substance abuse who had their outpatient treatment routines interrupted, in addition to those who fell ill because of their distance and the anxiogenic environment of the epidemic. In this scenario, the older population is also included, who, due to the accumulation of multiple risk factors for COVID-19, are being subjected to the most rigorous distance measures, which further increases the barriers to obtaining services. And there will also be those in the post-acute phase of COVID-19, a condition of pathophysiology still unknown, which will also need longitudinal care. If nothing else, older people face barriers secondary to age and utilitarian logic applied to human beings.⁹

Such a late wave could represent a real tsunami on the older population if alternative strategies are not developed, and there are no immediate responses from the health system in the face of increased demand and the specificities that are expected. A complex dilemma is set before us: facing one of the most devastating epidemics of modern times and, at the same time, not compromising the advances previously achieved in the control of NCDs in Brazil.¹⁰ Do we really need to focus our attention fully on fighting COVID-19 and risk neglecting all other diseases? Are there any feasible alternatives for taking care of the chronically ill in these times of exception?¹¹

The opinion of these authors is that there is no longer any way to wait; there is an urgent need to plan and implement

actions to meet the demand that is already imposed. There is no approved vaccine. Health systems, even in high-income countries, are overburdened. In Brazil, it is no different: cities like São Paulo, Rio de Janeiro, Fortaleza, and Manaus are on the verge of health collapse given the burden of sick people by SARS-CoV-2.¹² Today, in the light of science, social distancing, and the isolation of cases are still the most important strategies to fight the new coronavirus. And it has been four months like that. The health services must start a movement of readaptation, with an emergency contingency plan. Faced with the prospect of a pandemic that will perpetuate itself in cycles until there is a vaccine and because older patients with chronic diseases will continue to be at risk and always vulnerable to infection, health services will need to adapt quickly. The return of assistance activities cannot be as it was before. Before establishing the return of these activities, it will be necessary to seek alternatives regarding the structure of care spaces to make them safe for patients and health professionals. Therefore, the current measures are not expected to be reversed, and we will need to creatively and immediately build alternatives to prevent and control chronic diseases.

For that, it is necessary to concentrate on actions that can really change the course of the problem and that are feasible at the current moment. With the pandemic and distance measures, home life has become the harbinger of procrastination and the adoption of harmful habits to health.¹³ Knowing what *a priori* needs to be changed helps to plan reactions appropriately. According to Malta et al.,¹⁰ prevention and control of chronic diseases requires strategies that are sustainable and adjusted to the common modifiable risk factors: smoking, physical inactivity, inadequate diet, obesity, dyslipidemia, and consumption of alcohol. And, clearly, all these factors are subject to remote intervention. Mann et al.¹⁴ observed the exponential growth of telemedicine. Besides, different health conditions can be monitored and managed without the direct contact of a doctor or health professional: anticoagulation controls, adjustments, and guidelines on the correct use of medications for chronic hypertension, diabetes mellitus, hypothyroidism, chronic pain control, among several other possible scenarios.¹⁵ Consequently, telemedicine is gaining ground due to its urgency, leading to its approval by the professional council, including the Federal Council of Medicine, along the lines of what already occurs in psychology. Telemedicine will be a great ally at this time, and the involvement of community partnerships for patient monitoring may be essential.

In this new stage of care, the presence of creativity and innovation in managing of chronic diseases will be the

great challenge for all medical specialties. This new phase will require unity and joint thinking. In addition to identifying the pathophysiology, diagnosis, and treatment of the new coronavirus, we are facing a major challenge to be faced for CNCDs.

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