

## Covid-19: perspectives and initiatives in older adults health context in Brazil

Covid-19: perspectivas e iniciativas no contexto da saúde do idoso no Brasil

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**Abstract** *This article provides information about COVID-19, contextualizing the national and international scenario, with an emphasis on the health of the elderly. Perspectives and initiatives for this risk group are presented, reinforcing the need to consider the aging process and not just age as the main marker in the approach of this population.*

**Key words** COVID-19, Health of the elderly, Brazil

**Resumo** *Este artigo fornece informações sobre a COVID-19, contextualizando o cenário nacional e internacional, com ênfase na saúde do idoso. São apresentadas perspectivas e iniciativas voltadas para esse grupo de risco, reforçando a necessidade de considerar o processo de envelhecimento e não apenas a idade como o principal marcador na abordagem dessa população.*

**Palavras-chave** COVID-19, Saúde do idoso, Brasil

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The world is currently in the throes of a pandemic caused by severe acute respiratory coronavirus 2 (SARS-CoV-2), a novel virus that causes the coronavirus disease 2019 (COVID-19)<sup>1</sup>. Following the first reported cases in China in December 2019, COVID-19 spread rapidly, inflicting uncalculable damage on quality of life. The COVID-19 pandemic has posed far-reaching threats, especially to the economy, health, and the sustainability of healthcare systems. As of June 21st, the World Health Organization (WHO) reported over 8.5 million cases of SARS-CoV-2 infection in 213 countries and territories and more than 450 thousand deaths<sup>2</sup>. In Brazil, the first COVID-19 case seems to have occurred on February 26<sup>th</sup>, and as of June 21st, the country had over 1 million confirmed cases and more than 50 thousand deaths<sup>3</sup>.

The risk of dying from COVID-19 increases with age. While the fatality rate is nearly 0.4% for patients under the age of 50<sup>4</sup>, it rises to 3.6% in patients aged 60-69; 8.0% in patients aged 70-79; and up to 14.8% and in patients over 80<sup>5</sup>. In Brazil, as of June 18<sup>th</sup>, 2020, more than 70% of deaths were amongst people above 60 years of age<sup>6</sup>. Older age is not the only risk factor associated with worse outcomes, as comorbidities such as hypertension, cardiovascular disease, diabetes, chronic respiratory disease, and chronic kidney disease also increase the risk of death<sup>1</sup>. Given that older adults experience more and more severe chronic diseases<sup>7</sup>, older adults with multimorbidity are expected to suffer even more severe courses of COVID-19. Decline in immune function<sup>8</sup>, the proinflammatory profile<sup>9</sup>, and alterations in the angiotensin-converting enzyme (ACE) 2 receptor<sup>8</sup> may play a role in the severity of COVID-19. In addition to the decline of immune function commonly observed in older adults, many older adults with comorbidities—such as hypertension and diabetes mellitus—often exhibit both a proinflammatory profile and have an upregulation of ACE2 when treated with ACE inhibitors<sup>10</sup>. It has been hypothesized that SARS-CoV-2 binding to the ACE2 receptor could be an essential mechanism for the virus to enter host cells<sup>10</sup>. This hypothesis could explain the increased virulence of COVID-19 in people with hypertension and diabetes.

Older adults may present clinically with different symptoms; they do not always have the typical symptoms such as cough, fever, fatigue, and dyspnea. Instead, older adults, especially those with frailty, may be afebrile and may not have cough, chest discomfort or sputum pro-

duction. Tachypnea, delirium, tachycardia and decrease in blood pressure may also be present. To increase diagnostic accuracy and not merely rely on symptoms, clinicians should also familiarize themselves with typical imaging findings in COVID-19 patients. Both Brazilian and international studies have found that chest computed tomography (CT) is abnormal in the majority of patients with COVID-19<sup>11</sup>. Patients with SARS-CoV-2 infection usually present ground-glass opacities on CT scans, with a reticular pattern, fibrotic streaks, subpleural line, and air bronchogram<sup>12,13</sup>. Although CTs may be similar in older and younger patients, older adults may be more likely to present extensive lung lobe involvement, and subpleural line and pleural thickening<sup>14</sup>.

Besides the above-mentioned aspects, relevant measures adopted by the WHO, but with direct impact on the elderly populations, are the severe social distancing measures—travel restrictions, cancellation of recreational activities, closures of schools, and many businesses—that are taking unprecedented socioeconomic and psychological tolls. Fear of shortages of essential provisions such as food, medications, and cleaning and hygiene supplies are a salient concern, especially among older adults<sup>15</sup>. Because older adults are at heightened risk of several diseases, including mental health problems<sup>16</sup>, isolation measures will probably disproportionately affect them. This is because, for many older adults, their only social contact is usually out of the home, such as at community centers and places of worship. For these older people, social isolation can lead to loneliness, which may then lead to depression, cognitive dysfunction, disability, cardiovascular disease, and increased mortality<sup>17</sup>.

Fortunately, several groups have anticipated the negative consequences that social isolation in older adults provoke, and have established actions. Two such organizations are the Brazilian Society of Geriatrics and Gerontology (SBGG) and the Oswaldo Cruz Foundation (Fiocruz), that have emitted recommendations related to mental health care and palliative care<sup>18,19</sup>. Specifically, the SBGG released a report advocating that chronological age should not be an isolated decision factor when deciding who to admit to intensive care units during the COVID-19 pandemic. Instead, patients should be evaluated clinically, especially in terms of their functionality. Older adults should also receive specialized attention related to advance directives upon admission to intensive care units and definition of palliative care measures<sup>20</sup>. The Brazilian National Academy

of Palliative Care<sup>21</sup> has also released information on palliative care in COVID-19 and is also part of the Choosing Wisely International initiative. The document translated by Choosing Wisely Brazil is a list of potential recommendations to help tackle COVID-19 in several countries. The list provides recommendations for the general public and also for health professionals, such as: “do not send frail residents of a nursing home to the hospital unless their urgent comfort and medical needs cannot be met on-site; do not intubate frail older people in the absence of a discussion with family members regarding the anticipated directives of will whenever possible”<sup>22</sup>.

Undeniably, palliative care must be part of the COVID-19 response, despite the fact that the WHO has not mentioned this topic in its guidelines on COVID-19<sup>23</sup>. The care perspective must also include the training of health professionals. Therefore, the National Council of Health Secretaries offers the *Geriatric Health Care in COVID-19* course, with an emphasis on assessing older adults, triage and risk classification in health care networks, and palliative care<sup>24</sup>. An especially worrying situation is unfolding in long-term care institutes (LTCs), as a significant proportion of older adults reside in these living facilities. However, many of these LTCs are not adequately prepared to face the COVID-19 pandemic<sup>25</sup>. Brazil's National Secretariat for the Promotion of Elderly Rights currently surveys these institutions to measure needs<sup>26</sup>. The Ministry of Health is also surveying the situation in LTCs and has released a technical guide for COVID-19 prevention and control in these institutes<sup>27</sup>. The SBGG and ILPI.me initiative are also reinforcing other guidelines<sup>26</sup>. The ILPI.me initiative is a website created by a Task Force that assembles renowned Brazilian authorities in the Geriatrics and Gerontology field and other professionals with extensive experience in the management of ILPIs. The National Front for strengthening ILPIs has also released two other official documents<sup>28,29</sup> aiming at providing subsidies for decision-making processes and for the allocation of resources by the responsible spheres in the emergency response to the COVID-19 pandemic. At the international level, other entities such as the WHO<sup>30</sup>, the American Geriatrics Society (AGS)<sup>31</sup>, British Geriatrics Society (BGS)<sup>32</sup> and the International Association for Gerontology & Geriatrics (IAGG)<sup>33</sup> also provide recommendations for COVID-19 control in LTCs.

Even if older adults are able to remain in their homes and practice social distancing to prevent

infection, they still may suffer physically, psychologically, or emotionally. The most severe cases can involve elder abuse/neglect or even violence<sup>34</sup>. Caregivers may see an increase in stress when isolating for longer periods of time together with the person receiving their care and are deserving of interventions to conserve complete well-being. The suspension of most non-emergency consultations—whether through house calls, clinics, and other healthcare spaces—for possible cases of COVID-19, as well as the orientation for the older adults to remain at home, have raised concerns on the maintenance of levels of physical activity and functionality. This perspective can be worrying especially for frail older adults, including those with dementia and Parkinson's disease. Aprahamian and Cesari<sup>35</sup> suggest that programs like Vivifrail<sup>36</sup> can help promote physical activity.

The American College of Sports Medicine released recommendations for the quarantine period, reinforcing the importance of staying physically active<sup>37,38</sup>. It is important for the population to follow the recommendations of physical exercise professionals to adjust the practice of physical activity to daily life. It is also essential that individuals who regularly perform physical exercise maintain their practice even during times of lockdowns or social distancing. Sedentary behavior should be avoided as much as possible while staying home<sup>38</sup>. The Brazilian Association of Physical Therapy in Gerontology (ABRAFIGE) suggests adopting strategies to maintain physical-functional stimuli, and providing guidelines with booklets for families and caregivers, prescription of home exercises, and suggestions for routines<sup>39</sup>. Other recommendations include those from the International Association of Physical Therapists working with Older People (IPTOP)<sup>40</sup>, which compiled a resource to promote physical activity and exercise with older adults during COVID-19 shelter-in-place recommendations, and the initiatives by the World Federation of Occupational Therapists<sup>41</sup>.

Aprahamian and Cesari<sup>35</sup> lay out a series of recommendations for geriatric specialists that can also be useful for other specialists and serve as a framework to guide Brazilian healthcare improvement efforts. We believe they are valuable and should be enlisted here in full: 1. Bringing together interdisciplinary hospital teams from a geriatric perspective; 2. Screening for frailty, a principle also recommended by Morley and Vellas<sup>8</sup> and by the National Institute for Health and Care Excellence (NICE)<sup>42</sup> for critical care in adults; 3. Prevention of iatrogenic conditions; 4.

Monitoring of cognitive function and delirium; 5. Testing for SARS-CoV-2 infection and implement social countermeasures; 6. Monitoring of LTCs; and 7. Promoting physical activity.

Considering the Brazilian scenario and its specificities, projections of COVID-19 incidence in the upcoming weeks foreshadow severe adverse outcomes for older adults, especially for those

with frailty and comorbidities<sup>8</sup>. Brazil's approach for supporting this population through the pandemic must not only consider age as the primary risk factor but rather address it with a holistic view of the complex aging process<sup>35</sup>. Actions to support older adults from this viewpoint must be comprehensive and integrated into the health care networks in the Brazilian health system.

### **Collaborations**

MS Pegorari, DG Ohara, AP Matos e ACPN Pinto contributed to the study conception and design, and article writing and editing. All authors read and approved the final version of the article to be published.

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