



## The pediatrician as the protagonist in the confrontation of COVID-19 in 2021

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In the year 2020, doctors faced a new disease, one with a high severity potential, which mobilized clinicians and scientists to search for coping strategies<sup>1</sup>. Brazil has already surpassed the mark of 200,000 people killed due to COVID-19. In this context, Pediatrics has been relatively spared and the incidence among children and adolescents has been between 2 and 5% of total cases<sup>2,3</sup>, with low mortality rates<sup>4</sup>. Children under one year of age are more likely to have complications from the disease<sup>5</sup>, especially the multisystemic inflammatory syndrome<sup>6</sup>; however, the majority is, in fact, asymptomatic, and may have mild airway infection or gastrointestinal symptoms, abdominal pain, vomiting and diarrhea<sup>7</sup>. The exception is those with comorbidities, such as obesity<sup>8</sup> and other chronic conditions, in which there is potential severity and less favorable progression<sup>9</sup>.

Some factors explain the lower incidence in children, such as peculiarities of the immune system, airways less attacked by environmental factors and, basically, the relative immaturity of angiotensin-converting enzyme-2 receptors used by the virus to enter the cell<sup>3</sup>. In addition to the pathophysiological issue, it is a fact that children are less exposed to the virus than adults: schools remained closed practically throughout the entire year of 2020, and the social distance measures had a more intense repercussion among them, since they were the last group to participate in the flexibilization processes and external activities, such as sports, dances, fights, etc., were suspended.

However, in 2021, a different picture appears. The trend is that, even in the face of new waves of incidence, schools and other

activities will return, albeit partially. At the same time, vaccines that have already been approved and are in the process of being approved, and possibly even for some time, will be restricted to adults<sup>10</sup>. Thus, there will be more children exposed to the disease and most of them susceptible to infection, since they will not be immunized, except for those who have already developed natural immunity.

Thus, it is likely that children and adolescents will concentrate the majority of cases with progressive prevalence going forward; and, even though severe cases are rare in this age group, with an increase in the number of cases, there may possibly be, in gross numbers, more cases with poor evolution and greater hospitalization needs, both in wards and in intensive care units.

The relative and absolute increase in cases in the pediatric age group, associated with the different strains that have emerged as a result of viral mutations<sup>11</sup>, will cause the emergence of new forms of initial presentation and disease evolution, which will manifest among children. In this new epidemiological scenario, pediatricians will be responsible for facing the pandemic. For that, they must be qualified for the diagnosis, even of atypical cases, and, especially, for outpatient and hospital treatments. The Pediatric Residency Journal recently published a special issue on the disease, in which the main topics were widely discussed by specialists from the most diverse fields<sup>12</sup>, making it an excellent learning opportunity. The challenge that lies ahead for the year 2021 will require constant updating, both by the Pediatrician already working in the clinic and in teaching, and by the Residents

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in training, who will be responsible, together with the associate entities, to dictate the direction of the pandemic in the coming months.

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