



# Adults With Autism Should be Considered a Priority in COVID-19 Immunization Programs

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The Coronavirus Disease 2019 (COVID-19) was first identified in China in December 2019. It rapidly spread across the world, and, in March 2020, the World Health Organization declared it a global pandemic. In mid-August 2021, more than 4.4 million deaths have been directly caused by this disease worldwide (Ritchie et al., 2020). Despite this dramatic number, just around 25% of the population, at the time of this letter, have been fully vaccinated by one of the available vaccines (Ritchie et al., 2020). All around the globe, priority groups for vaccination include the elderly, healthcare workers, and people with high-risk comorbidities. In this letter, we discuss why we believe people with autism should be included in this last category.

Autistic Spectrum Disorder (ASD) has an estimated prevalence between 1 and 2% and is manifested by atypical, repetitive, and stereotyped behaviors; functional impairment of communication and social interaction, in addition to hypo- or hyper-reactive sensory processing changes (American Psychiatric Association, 2013). The prevalence of sensory processing deregulation in ASD is high. Tomchek and Dunn (2007) observed that 95% of people with autism had impairments in some sensory modality and these manifestations tend to be perpetuated in adulthood.

These individuals may have a higher risk of being infected due to sensory dysregulation, atypical behavioral patterns (intraoral exploration of objects, non-adaptation to the use of masks), and difficulties in understanding and adhering to collective and individual prevention measures (social distancing, personal hygiene habits) (Courtenay & Perera, 2020). Also, due to the complexity of the treatments to which they are exposed, they frequently attend rehabilitation centers where there is a high flow of people. The interruption of these treatments, followed by the disruption of consistent routines and the loss of support networks, can lead to important behavioral changes, such as anxiety, irritability, and hostility (Amorim et al., 2020; Baweja et al., 2021; Summers et al., 2021; Tokatly Latzer et al., 2021). As consequence, families of patients with autism have many more difficulties when trying to maintain social distancing.

Persons with autism can react disruptively to circumstances arising from hospitalization and this is due to several factors: (a) emotional dysregulation triggered by unpredictable and complex changes in routine and stay in an unfamiliar environment; (b) sensory hyperreactivity that prevents the acceptance of non-invasive ventilation devices and venous access; (c) resistance to accepting medications orally; (d) exacerbation of motor stereotypes, atypical behaviors and

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dysregulation of the sleep–wake cycle in situations that trigger anxiety, increasing the need for sedation and generating a higher risk of morbidity related to respiratory infection (Quiban et al., 2020); (e) failure to understand/accept the necessary hygienic measures in the environment; (f) aberrant behaviors involving other people, such as licking and excessive approximation. Also important are the emotional consequences inherent to the tests required to confirm the diagnosis (RT-PCR by nasal swab) and detect potential complications of the infectious condition (computed tomography of the chest) which generate intense sensory discomfort and might trigger attacks of aggression. The condition also poses challenges to the performance of the healthcare team and may implicate an increased risk of in-hospital contamination of people directly involved in care.

Experience in inpatient services for children with autism shows that contamination is high among them. A recent study showed a high rate of infection in patients with autism admitted to a university hospital for management of behavioral symptoms. Of the 11 confirmed cases of COVID-19, five (45.5%) had respiratory symptoms and one needed oxygen. The authors drew attention to the aberrant structure that five (45.5%) of them presented in the course of the disease, such as irrepressible licking behavior (Nollace et al., 2020). In this same unit, in the first week of the epidemic, 9% of the staff members were infected with SARS-CoV-2, which is an extremely high infection rate and shows the difficulties in dealing with these patients in an in-hospital environment in the current context. This rate was considerably reduced after the healthcare team received intensive training on prevention measures to avoid contamination (Cohen, 2020).

There is great variability in the clinical presentation of ASD, with different levels of functional impairment. Accordingly, the impact posed by the pandemic can vary widely among people with autism. The risks in this context may be lower in people with milder forms of ASD, and each case must be assessed individually. However, even people with mild autism can have sensory and relational difficulties that interfere with their ability to adhere to preventive measures and hospitalization. Therefore, we believe that all individuals with autism should be candidates for vaccination priority in the current context.

An alert has been previously published regarding the need to implement effective measures to prevent and track COVID-19 in people with autism and intellectual development disorders (Baghdadli et al., 2020). Here, we call on the scientific community to encourage the consideration of this population as a priority in immunization programs, in the light of the arguments previously stated. This measure would be effective not only to protect these individuals, but also to avoid the contamination of family members, caretakers, and healthcare professionals in close proximity to them.

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