

## Paediatric COVID-19 Infection in Iraq Is it not prevalent or underestimated?

مرض كوفيد-19 عند أطفال العراق

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Dear Editor,

Since the emergence of coronavirus disease 2019 (COVID-19), caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), in late December 2019 in Wuhan, China, the disease has infected hundreds of thousands of people worldwide. Its outbreak has led the World Health Organization (WHO) to announce a pandemic in March 2020.<sup>1</sup> The disease affects primarily T-lymphocytes, particularly cluster of differentiation (CD) 4+ and CD8+ T-cells, resulting in reducing the numbers and interferon- $\gamma$  production by CD4+ T-cells. These immunological surrogate markers could be beneficial because of their association with the severity of COVID-19 infection.<sup>2</sup>

Data on paediatric COVID-19 cases are rare. Recently published data suggests that children constitute 1–5% of diagnosed COVID-19 cases. In 90% of cases, the disease was diagnosed as asymptomatic, mild or moderate and deaths have been extremely rare. Up to 6.7% of cases might be severe but are generally seen in patients younger than 1 year of age and in those who have underlying diseases.<sup>3</sup>

The numbers of paediatric COVID-19 cases is a matter of concern in Iraq and worldwide. Due to financial constraints, testing for COVID-19 was introduced on the limited basis in Iraq utilising mainly rapid tests and to a lesser extent polymerase chain reaction tests of nasopharyngeal swabs. Although such limited testing capacity can't precisely determine the actual case definition rate, 115,332 COVID-19 cases and 4,535 deaths were registered until July 29, 2020 in Iraq.<sup>4</sup> The rise in COVID-19 cases is expected to continue based on different factors, notably active contact-tracing, increased testing capacity across the country and poor adherence to the guidelines of infection prevention measures as well as the loosening of movement-restrictions, particularly in impoverished and overcrowded areas. In Iraqi Kurdistan, four cases of paediatric COVID-19 were reported.<sup>5</sup> However, across other parts of the country, 4,043 positive paediatric cases out of 946,761 tested samples were detected by July 28, 2020 with a positivity rate of 0.4%.<sup>6</sup>

The actual rate of paediatric COVID-19 cases is underestimated in Iraq. The plausible explanations are manifold, namely (1) the milder clinical course of the disease in children compared to adults mimicking simple flu and, thus, these cases might escape the attention of treating paediatricians; (2) limited awareness of paediatricians about the disease itself; (3) popular misbeliefs/misinformation among the public on the seriousness of the disease; and (4) constrained laboratory testing capacity.

With the current state of the disrupted healthcare system in Iraq due to decades of conflict and underinvestment in healthcare services, the risks of potential paediatric COVID-19 infection in an already accelerating humanitarian crisis are multifaceted.<sup>7</sup> Infected children represent an infection reservoir that might act as spreader of infection in the community. Available data suggests that vaccine preventable diseases in Iraq are still occurring in high incidence and causing outbreaks precipitated by the fluctuation in vaccine coverage (60–80%).<sup>8</sup> The extended period of curfew affecting the implementation of national vaccination campaigns on one hand and the extended ban of international flights influencing the import of vaccines to Iraq on the other hand are expected to substantially put children at increased risk of missing routine vaccination schedules and devastate the suffering in the currently 62 camps of refugees and internally displaced people across the country.

In these unprecedented times, the United Nations Children's Fund and the WHO could jointly play a pivotal role in improving the care for children in Iraq, saving their lives, defends their rights, help fulfil their potential and prevent the spread of the disease through application of the following measures: (1) promoting good nutrition and hygiene practices; (2) providing access to water, food, education and healthcare; (3) developing proper, friendly

information on COVID-19 to children and families; (4) recommending following national guidelines on COVID-19 preventive measures such as physical distancing, hand washing and proper coughing and sneezing hygiene; (5) providing equipment and supplies for COVID-19 testing; and (6) importantly calling on the Iraqi government to invest more in healthcare services and intensify vaccination campaigns to cover children with missed vaccinations, once the COVID-19 pandemic is contained.

Early detection, registration, isolation, proper management of cases, increasing alertness of paediatricians and public and following infection prevention practices as well as vaccine development (solicited to be launched soon) represent the mainstay in the control of the paediatric cases of COVID-19 in Iraq.

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