



EPIDEMIOLOGICAL PARTICULARS OF FAMILY FOCUSES WITH COVID-19

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Introduction. An outbreak of the coronavirus disease 2019 (COVID-19) is spreading rapidly around the world, which is caused by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection. The population of all ages is susceptible to SARS-CoV-2 virus. The Johns Hopkins Bloomberg School of Public Health study group showed that children are at similar risk to infection as adults, but that they have fewer symptoms. The role of children in the transmission of SARS-CoV-2 and their susceptibility to mild or asymptomatic infections has been the subject of intense debate. However, it is important to determine the role of the child in maintaining and intensifying of COVID-19 cases. Data from China had showed that most children with COVID-19 were associated with family clusters, where strict social distancing measures have been implemented and 77% of pediatric cases had household exposure. While another data from other studies, such as the Netherlands, suggest that SARS-CoV-2 is spread mainly among adults and from adult family members to children. But emerging evidence suggests children are at greater risk of COVID-19 infection than initially predicted.

Material and methods. The determination of the epidemiological peculiarities of the family outbreaks with COVID-19, depending on the children age, the onset of the disease, the living environment, belonging to communities was performed based on a descriptive study. The research group of 160 family outbreaks, which required hospitalization in Municipal Clinical Hospital of Contagious Diseases for Children, during January - February 2021, were included.

Results. The number of family outbreaks has increased in January (n=72) vs. February (n= 88). The rate of outbreaks involving school-age children increased from 37.5% in January to 53.4% in February. The onset of the disease in family outbreaks varies depending on the age group of the children. In outbreaks with children aged 0-6 years initially make parents ill in 40.7%, or concomitant onset in 32.55% of cases and 32.55% of outbreaks the onset of the disease occurs in children. In school-age children's outbreaks, the child is the first who manifest the disease 51.35%, outbreaks with the onset of the disease in parents 41.9%, or concomitant onset 6.75% of cases. It follows a trend of increasing the share of outbreaks in which children are the primary sources of infection, increasing outbreaks from rural areas (from 18.1% to 22.73%), and outbreaks involving organized children (from 43% to 62.5%) which indicates a much higher risk transmission of Covid-19 infection in children's communities.

Conclusions. Therefore, children are sources of infection in COVID-19, being responsible for family outbreaks, in about a third of the cases they were the first to show the disease, especially school-age children. Determining the epidemiological features in family outbreaks represent one of the important conditions in developing strategies for action and response to COVID-19 infection in the community.