

**CLINICAL-EPIDEMIOLOGICAL ASPECTS OF PEDIATRIC PATIENTS WITH COVID-19**Ludmila BIRCA^{1,2}, Stela CORNILOVA¹, Diana SPATARU^{1,2}, Elena TABURCEANU¹, Tatiana STIRBU²¹PMSI Municipal Clinical Hospital of Contagious Diseases for Children, Chisinau, Republic of Moldova²Nicolae Testemitanu State University of Medicine and Pharmacy, Republic of Moldova*Corresponding author:* Diana Spataru, e-mail: diana.spataru@usmf.md

Keywords: COVID-19, children, seroconversion.

Introduction. Despite spreading worldwide, the clinical and epidemiological patterns of COVID-19 still remain uncertain, especially among children. Further research is needed to elucidate the interaction between SARS-CoV-2 virus and the child's body. Currently, there are few reports on sero-epidemiological analyzes of serum antibodies anti-SARS-CoV-2 in children, but also how long the antibodies and potential protection persist. Moreover, knowledge about the factors that affect the time to seropositivity is lacking. To prevent and control COVID-19 in children, larger studies are needed and the knowledge should be strengthened to monitor the infection at the population level. The purpose of the paper: determination of some clinical-epidemiological and evolutionary aspects of COVID-19 in children hospitalized in PMSI Municipal Clinical Hospital of Contagious Diseases for Children.

Material and methods. The clinical-epidemiological features of COVID-19 have been analyzed in 1102 children, hospitalized in Clinical Hospital of Contagious Diseases for Children during 2020. The case management was in accordance with the requirements of the National Clinical Protocol, in some children investigations of specific immunity against SARS-CoV-2 were performed by ELISA method, in paired serum samples. The information was grouped and analyzed using the Microsoft Excel 2019 program, according to age, sex, living environment, average length of hospital stay, form of disease, and the results of serological investigations, using the method of descriptive, cross-sectional epidemiological study.

Results. The group of pediatric patients with COVID-19 were represented equally by boys and girls (51.08% vs 48.92%), the age distribution being 0-3 years – 29.13%, 3-7 years – 20.87%, 7-11 years – 16.06% and 11-18 years 33.94%. The urban living environment has been set at 71.71%, rural – at 28.22% patients. The children were hospitalized on average of 3.26 (± 2.60) days of the disease, the average length of stay was 14.02 (± 5.25). Mild forms were diagnosed in 11.88%, moderate – in 85.29% and severe – in 2.81% of cases, respectively. The results of specific serological investigations were positive when taking the first sample in 21.15% IgM and 17.30% IgG, in the second sample the share of seropositivity was 83.65% IgM and 79.32% for IgG ($p < 0,001$). Seroconversion varied according to the week of the disease (I, II, III, IV), obvious results after the 2nd and 3rd week of the disease, both for IgM (18.4%, 85.47%, 81.11% and 100% respectively), as well as for IgG (14.42%, 81.19%, 76.6% and 100%). All children were recovered, there were no cases of deaths.

Conclusion. COVID-19 infection in hospitalized children evolved more frequently in medium (85.29%) and mild (11.88%) forms, middle and preschool students dominated in the age structure. In general, pediatric patients develop an age-dependent anti-COVID-19 immune response after the 2nd and 3rd week of illness.