Background and aims Hepatitis C virus (HCV) infection is cause of significant morbidity and mortality, especially in children. The study aimed to describe the epidemiological characteristics of children infected with HCV diagnosed in „Grigore Alexandrescu” Children’s Hospital, Bucharest.

Methods We reviewed the medical records of HCV infected children diagnosed between January 1991 and December 2012 and analysed demographic data, viral serology and route of infection.

Results We identified 58 cases, all diagnosed by detection of anti-HCV antibodies. 47.3% of the patients came from Bucharest, the rest residing in neighbouring districts. They were equally distributed by means of sex (52.6% boys) and age groups. Regarding alleged route of transmission: 43.7% had infected mothers (perinatal infection), 22.8% had a history of parenteral procedures (surgical intervention, blood transfusions, iv drug abuse, tattoos). 69.5% underwent evaluation for fibrosis, by either hepatic biopsy or fibroscan: 85% had a low fibrosis score (< 3). 58% of the patients had minimal cytolysis, with ALT less than 1.5 fold the normal value. Regarding viremia, 40% of the patients had less than 100 000 copies and only 1.75% over 10 millions. No correlation was found between the level of transaminases and the viremia or fibrosis scores on hepatic biopsy.

Conclusions HCV infection in children is a public health issue. Materno-fetal transmission is the main route of infection followed by transfusions and other parenteral routes. We predict that a thorough pregnancy monitorization and an accurate blood donor screening will significantly reduce the number of infected children in our country.