

ABSTRACTS

# 22nd Annual Meeting of the European Society for Clinical Virology



EUROPEAN SOCIETY FOR CLINICAL VIROLOGY

**COPENHAGEN 2019**

11-14 September  [www.escv2019.com](http://www.escv2019.com)

22<sup>ND</sup> **ESCV**



**[P006] RHINOVIRUSES IN HOSPITALIZED CHILDREN WITH ACUTE RESPIRATORY INFECTION, CROATIA 2017-2019**

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**Aim:** To determine the clinical characteristics and epidemiology of rhinovirus infection in hospitalized children with acute respiratory infection (ARI).

**Method:** A prospective study conducted from March 2017 to February 2019, included 427 children with ARI, admitted at Children's hospital Zagreb. Nasopharyngeal swabs were tested for respiratory viruses by multiplex PCR and cDNA synthesis in one-step reaction, followed by detection of PCR amplicons using microchip electrophoresis.

**Results:** There were 259 boys and 168 girls. According to the age, the following groups were defined: 0-12 months (n=129), 13-36 months (n=117), 37-60 months (n=51), and >60 months (n=130) of age. According to the localization of infection, patients were categorized as those presented with upper respiratory tract infection (n=221), and those with lower respiratory tract infection (LRTI) (n=206). The viral etiology was proved in 74.9 % of the patients. The most commonly detected respiratory virus was rhinovirus, diagnosed in 40.5% of all patients; 63.6% as mono-infection, and 36.4% as co-detection with other respiratory viruses. Fifty-one percent of children with rhinovirus mono-infection presented with LRTI. There were no statistically difference in rhinovirus prevalence according to the gender, age, and localization of infection ( $P > 0.05$ ). Peak incidence of rhinoviruses was registered in spring and autumn months.

**Conclusions:** Rhinoviruses were the most prevalent respiratory viruses in this study causing significant proportion of LRTIs. These results highlight its role in etiopathogenesis of LRTI in children of all ages.

**Acknowledgements:** This study was supported by the Croatian Science Foundation, Project No 7556 to S. Lj. S.