

P2582 Hospital-acquired respiratory viral infections in children's hospitalMatea Kos*¹, Amarela Lukic-Grlic¹¹ Children's Hospital Zagreb, Zagreb, Croatia

Background: Respiratory viruses often cause hospital-acquired infections in pediatric wards. Respiratory syncytial virus is the most important respiratory pathogen and also the major cause of hospital-acquired respiratory infections in small children. However, other respiratory viruses can be detected, as well.

The aim of this study was to determine frequency of different respiratory viruses as causative agents of hospital-acquired infections in children's hospital, their distribution by age, length of hospital stay preceding the acquisition of infection and hospital ward distribution. The study was carried out at Children's hospital Zagreb, Croatia, during a 6-month period (November 1, 2017 to April 30, 2018)

Materials/methods: Nasopharyngeal aspirates of hospitalized patients with respiratory symptoms were tested using multianalyte point-of-care antigen detection test system for 10 respiratory viruses (mariPOC®, ArcDia International, Turku, Finland).

Results: Out of 117 hospitalized patients with positive result, 19,6% acquired the infection during the hospital stay (23/117). The majority (87%) of infections were caused by three viruses: RSV (9/23, 39%), influenza A (7/23, 30,4%) and influenza B (4/23, 17,4%). Adenovirus was detected in one patient and hMPV in 2 patients. Hospital-acquired infections were detected more often in children older than 2 years (63,6%). The median age was 3,25 years. The mean duration of hospitalization before the acquisition of infection was 11 days (range of 4 to 33 days).

Respiratory viral infections in children were manifested as flu symptoms in 43,5%, upper respiratory tract infection in 30,4%, acute bronchiolitis in 21,7% and acute bronchitis in 4,4%. None of the patients developed complications. Infections were detected more often at oncology (9/23, 39%) and neurology (7/23, 30,43%) departments than in other pediatric units. At surgical department two patients (8,7%) acquired infection.

Conclusions: Respiratory syncytial virus and influenza viruses are the most frequent and important cause of hospital-acquired respiratory infections in children. This study also shows that hospital-acquired respiratory viral infections are more frequent at pediatric wards than in surgical units in children's hospital.

