

**CR39: Risk factors for severe bronchiolitis: a retrospective review of patients admitted to the University Hospital from Central region of Slovenia**

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**Aim:** The objective of our study was to determine the microbiological and clinical factors associated with the severity of bronchiolitis.

**Method:** A retrospective chart review of children <2 years old, diagnosed with bronchiolitis at the University Medical Centre Ljubljana (UMCL) between 1. 5. 2014 and 30. 4. 2015, who were treated as outpatients (PED group) or as inpatients in the standard hospital setting (WARD group) or in the intensive care unit (PICU group), was performed. Detection of several respiratory viruses in nasopharyngeal swab in a subgroup of patients was accomplished by RT-PCR.

**Results:** The study included 761 children. The most frequently detected viruses were respiratory syncytial virus (RSV), human rhinovirus (hRV) and human bocavirus (hBoV) (41 %, 18.4 % and 13.1 %, respectively). As expected, patient groups (PED, WARD, PICU) differed in Wang respiratory score for the severity of bronchiolitis ( $p < 0.001$ ). No statistically significant differences regarding the causative viruses were found comparing the three groups, but there was a significantly lower proportion of children with the presence of more than 1 virus in nasopharyngeal swab, in patients who needed treatment in PICU compared to PED and WARD groups ( $p = 0.017$ ). In addition, the three groups statistically significantly differed in age and birth weight, proportion of patients with comorbidities, treatment with bronchodilator, use of antibiotics and in leukocyte counts. However, multiple regression analysis revealed that only younger patient age and the use of antibiotics were associated with a more severe disease course.

**Conclusion:** RSV, hRV and hBoV were the most frequently detected viruses in our patients with bronchiolitis. The majority of bronchiolitis patients admitted to the PICU had only one virus detected. Younger age and the use of antibiotics were associated with a more severe course of the disease.

**Declaration of Interest:** None