

INFLUENCE OF INFLUENZA A SUBTYPES ON CLINICAL COURSE OF INFLUENZA IN CHILDREN HOSPITALIZED

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Background: This study aimed to assess frequency of influenza A subtypes in children hospitalized due to influenza and its correlation with clinical course of influenza.

Material and methods: In three consecutive influenza seasons (Sep2015-Aug2018) 301 children with influenza were hospitalized, including 200 influenza A and 22 influenza A+B cases. In 68% of cases (152/222) determination of virus subtype has been performed. Among 152 patients aged 16 days-206 months (median 18 months) frequency of influenza subtypes was assessed, and A/H1N1/pdm09 subtype was analyzed in terms of severity parameters: clinical (duration of signs and symptoms, fever, length of stay-LOS) and laboratory (CRP, procalcitonin, leukocytosis and neutrophil count), and outcome.

Results: The most frequent virus subtype was A/H1N1/pdm09 (55%;84/152 cases), followed by A/H3N2 (10%;15/152), and A/H1N1 (5%;7/152). In 30% (45/152) determination of virus subtype was impossible. General rate of complications was high, reaching 60% (91/152), including 2 cases of respiratory failure (1.3%) and 4 sepsis (2.6%). There were no statistically significant differences between A/H1N1/pdm09 and other A subtypes in terms of clinical or laboratory severity parameters. Multiple logistic regression model showed no differences in the risk of complications, pneumonia, respiratory failure, referral to tertiary care center, prolonged LOS or high fever attributable to A/H1N1/pdm09.

Conclusion: Over half of hospitalizations were caused by A/H1N1/pdm09 subtype. Influenza A has a relationship with high risk of complications. We found no differences in course or outcome of influenza hospitalization that would be related to A/H1N1/pdm09.