

## Respiratory infections

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### RSV and influenza coinfections in 2015/2016 season

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**Background:** Influenza and RSV infections are severe diseases in the youngest group of patients and often lead to hospitalization. Frequency of viral coinfections remains unknown, yet there is more and more data and higher than expected percentage of coinfections. Here, we report a series of RSV-influenza coinfections in 2015-2016 season.

**Material and methods:** 48 children aged 6 months or less were hospitalized in Pediatric Ward at the Bielanski Hospital in 2015/2016 season because of influenza. Majority of the group was male (32 vs. 16), opposite to the coinfection group (7 girls and 3 boys).

**Results:** 10 patients (21%) had RSV-influenza coinfection, all of them were infected with influenza type A, including 2 patients with type A and B coinfection. Patients with coinfection required longer hospital treatment (median 11 vs. 8 days,  $p=0.036$ ), and generated higher cost of hospitalization (936.5 vs 684 euro,  $p=0.039$ ). 8 patients (80%) obtained antibiotic, while in control group it was administered in 53% of cases. Frequency of complications in co-infected group was 90%, 1 patient was transferred to the intensive care unit (ICU), while 50% of patients in control group had complications, and none required ICU. Relative risk (RR) of complications was 1.8.

**Conclusion:** We observed high incidence of RSV-influenza coinfections, which were related especially to flu type A virus. It needs to be remembered, that one pathogen may coexist with the other, and cause more complications, longer hospital treatment and higher medical costs. It remains to be cleared was is the relationship between virus type and the risk of coinfection to detect better patients at risk.

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