

## Pediatric respirology and hereditary disorders

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### Bacteraemia in children hospitalized with RSV infection

*August Wrotek<sup>1</sup>, Małgorzata Czajkowska<sup>1</sup>, Teresa Jackowska<sup>1</sup>*  
<sup>1</sup>CMKP, Department of Pediatrics, Warsaw, Poland

**Background:** Recent study reported 10% of bacteraemia in RSV infections, although earlier it had been showed that bacteraemia rarely exceeds 1%. We retroanalyzed patients" records in order to verify the usefulness and costs of blood cultures in RSV infections.

**Material and methods:** 513 children aged 8 days-121months were diagnosed with RSV infection between January 2010 and June 2017 (90 consecutive months). The diagnoses included bronchiolitis (390 patients), RSV pneumonia (65 patients), bronchitis (57 patients), and 1 case of upper respiratory tract infection.

**Results:** 212 blood cultures were performed in 185 patients (36% of patients) had blood culture performed. In 10 cultures (5.4%) bacteria *St. haemolyticus*- 4 cases, *St. epidermidis*-1, *Corynebacterium*- 1, *S. parasanguinis*- 1, *Rothia mucilaginosa* and *M. luteus* in 1 patient, *St. hominis*-1) were found, but in every patient it was verified as a sample contamination, not bacterial infection. Patients with blood cultures required longer hospital stay (9 vs. 8 days,  $p<0.01$ ), and statistically significant higher leukocytosis and CRP (10.65 vs 9.5, and 2.19 vs. 0.86 mg/L,  $p<0.01$ ), higher blood saturation (96% vs 95%,  $p<0.01$ ), and lower breath rate (50 vs 60 per minute,  $p<0.01$ ), which shows no clinical difference between the patients. Total cost of blood cultures in a pediatric ward corresponds to 1980 euro (8480 PLN); if performed in each patient costs would reach 5490 euro.

**Conclusions:** The frequency of bacteraemia found in our group of patients was very low, what stays in line with earlier studies. There was no sepsis diagnosed. Blood culture performance generates higher costs of treatment, requires additional blood sample, but has no practical use in children hospitalized with RSV. Blood culture in case of RSV infection should not be performed routinely.

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