

EFFICIENCY OF RSV RAPID DIAGNOSTIC TESTS IN HOSPITALIZED CHILDREN

Małgorzata Kobiałka^{1,2}, August Wrotek^{1,2}, Teresa Jackowska^{1,2}

¹Department of Pediatrics, Centre of Postgraduate Medical Education, Marymoncka 99/103, 01-813 Warsaw, Poland, e-mail: tjackowska@cmkp.edu.pl.

²Department of Pediatrics, Bielanski Hospital, Ceglowska 80, 01-809 Warsaw, Poland, e-mail: tjackowska@cmkp.edu.pl

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Background: Respiratory syncytial virus (RSV) is one of the most frequent causative agents of respiratory tract infections in children, and rapid antigen diagnostic tests (RADT) are easily applicable diagnostic tools. We aimed to verify their efficiency and factors influencing their performance in hospital setting.

Methods: RADT and PCR were performed in children under 2 years, with the latter one used as a reference method. We verified the influence of duration of symptoms, patients' age, feeding method, crowding at household, presence and duration of fever.

Results: Diagnostic tests were performed in 164 children aged 0-2 years (median 2.54 months) and RSV was confirmed in 114 cases. Sensitivity, specificity, positive and negative predictive value (PPV and NPV) reached 75% (95%CI:67.3-81.7%), 100% (95%CI: 73.5-100%), 100% and 24% (95%CI: 19.3-29.4%), respectively. Sensitivity was affected only by duration of symptoms prior to hospitalization, varying between 47.4 % (95%CI: 24.5-71.1) on days 6-7 and 83.3% (95%CI: 71.5-91.7) on days 2-3.

Conclusions: RADT show satisfying sensitivity yet low NPV, thus they can be used to confirm not to exclude RSV infection. On the other hand, predictable factors barely influence the validity of the tests.