

## USEFULNESS OF RAPID TESTS IN DIAGNOSING INFLUENZA IN CHILDREN\*

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**Background:** Diagnostics in case of influenza needs to be rapid and reliable. Here, we aimed to calculate usefulness of Rapid Influenza Diagnostic Tests (RIDTs) in hospitalized children.

**Material and methods:** Both RIDT and PCR (as a reference method) were performed in 238 children (10days–17<sup>11</sup>/<sub>12</sub>years) who were hospitalized at the Department of Pediatrics or presented to the Emergency Ward. Sensitivity, specificity, positive and negative predictive value (PPV, and NPV) were calculated in the whole population and in subgroups based upon age and time prior to RIDT performance.

**Results:** RIDT showed low sensitivity of 25.4% with the lowest sensitivity observed in newborns, while the highest value (36%) in children aged 24-59 months old. The shorter the period prior to RIDT performance, the higher sensitivity (30% when performed within 2 days of symptoms onset, 20% between 3-5 days). Specificity was very high: 98.3% in the whole group, and did not vary significantly irrespective of age group (97% to 100%), nor time prior to testing (96% to 100%). Similarly, PPV was high (93.9% in total), varying between 90% and 100% in age groups, and 89% to 100% in time prior to testing groups. NPV was in general low (55.6%) between 50% to 67% in age groups, and 53% to 58% in time groups.

**Conclusions:** Clinical usefulness of RIDT in children hospitalized should be limited to confirmation of influenza, while exclusion of the disease based on RIDT may lead to false negative results. PCR should be preferred in neonates.

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