

RAPID DIAGNOSTIC TEST FOR INFLUENZA HELPFUL IN QUICK DIAGNOSTIC

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Background: The A/H1N1v pandemic influenza virus is a variant of the human A/H1N1 seasonal influenza virus circulating in the population since 1977. It differs from the seasonal influenza virus present in the human population in the content of a mixture of avian, swine and human viral influenza genetic material in the combination hitherto unprecedented in the world. The variant of the A/H1N1 virus was first identified in Mexico in April 2009 and since then has rapidly started to spread around the world. In Poland since the first A/H1N1v influenza case detection (06/05/2009) by the end of the reporting period (22.04.2010), within less than a year 2535 A/H1N1v influenza cases were noted, including 181 deaths. The largest number of cases were registered in November and December 2009. In Poland no vaccines against influenza type A/H1N1 were available in the epidemic season 2009/2010.

Results: In 2009/2010 in the Department of Pediatrics in Warsaw, Poland, 102 QuickVue rapid diagnostic tests for influenza A and B were performed in children reporting to the Emergency Room with symptoms of "influenza-like" respiratory tract infection (fever, rhinorrhea, cough, weakness, apathy). In 74 children, this test was performed within 45 days (from 4th November to 19th December 2009) and in 17 of them (24%) it was positive for influenza A. Positive tests were noted in 6 boys and 11 girls aged 2/12 to 17 years (mean, 7 years and 6 months). Five (30%) children did not require hospitalization, and twelve (70%), due to severe course or belonging to a high risk group, required hospital treatment. Five due to the lack of beds were sent to the hospital for infectious diseases.

Seven children were hospitalized in the pediatric department and in six of them the presence of viral A/H1N1v RNA was confirmed by polymerase chain reaction (RT-PCR, Polymerase Chain Reaction). In one a RT-PCR test was negative, and the QuickVue rapid diagnostic test for influenza type A was positive. The presented cases demonstrate that not only adolescents but also little children are affected by A/H1N1 influenza, and the leading symptoms may be nonspecific or atypical, such as unconsciousness, seizures, vomiting, or diarrhea. Therefore, a quick diagnosis at the ER is extremely important to be able to provide appropriate treatment and limit the further spread of infection among people from the closest circle.

Conclusions: Our experience shows that rapid tests for influenza are extremely helpful in making these decisions and establishing an accurate diagnosis yet cost-effective.

*MCPE grant 501-1-1-19-49/09