ACCURACY OF RAPID INFLUENZA DETECTION TEST IN DETECTION OF INFLUENZA A AND B VIRUSES IN CHILDREN YOUNGER THAN 59 MONTHS

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Background: Influenza burden among children is underestimated. Rapid influenza diagnostic tests (RIDTs) may be helpful in early diagnosis of the disease but their results should be interpreted carefully. Objectives: The aim of our study was to estimate the accuracy of the rapid influenza detection test BD Directigen™ EZ Flu A+B (Becton, Dickinson and Company, Sparks, MD, USA) used among children with influenza-like illness (ILI) consulted in the ambulatory care clinics. Patients/methods: The total number of 150 patients were enrolled into the study. Inclusion criteria were: age of the child less than 59 months, presentation of ILI according to CDC definition (fever > 37,8°C, cough and/or sore throat in the absence of another known cause of illness), duration of symptoms shorter than 96 hours. In all patients two nasal swabs and one pharyngeal swab were obtained and tested by RIDT, RT-PCR and real time RT-PCR. Results: For influenza A (H1N1)2009 virus sensitivity of RIDT was 62,2% (95% CI 53,4-66,5%), specifity 97,1% (95% CI 93,4-99%), PPV 90,3% (95% CI 77,5-96,5%), NPV 85,7% (95% CI 82,4-87,3%). For influenza B virus sensitivity was 36,8% (95% CI 23,3-41,1%), specifity 99,2% (95% CI 97,3-99,9%), PPV 87,5% (95% CI 55,4-97,7%), NPV 91,5% (95% CI 89,7 - 92,1%). Conclusions: The chosen RIDT immunoassay is a very specific but moderate sensitive method in diagnosis of influenza.

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